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Cost-of-Living Wage Clauses and UAW-GM Pact

The CPI—A Summary of Its Essential Features

Salaries of Federal Employees

Absenteeism and Injury Experience of Older Workers

United States Department of Labor • U.S. Bureau of Labor Statistics

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Monthly Labor Review

UNITED STATES DEPARTMENT OF LABOR • BUREAU OF LABOR STATISTICS

LAWRENCE R. KLEIN, *Chief, Office of Publications*

CONTENTS

Special Articles

1 Cost-of-Living Wage Clauses and UAW–GM Pact
8 The CPI—A Summary of Its Essential Features
12 Salaries of Federal Employees by Major Pay Groups
16 Absenteeism and Injury Experience of Older Workers

Summaries of Special Reports

20 Textile Dyeing and Finishing: Work Injuries in 1945
26 Salaries of Office Workers, New York City, 1948
30 Grain Milling Industry: Wage Structure, January 1948
32 Footwear Manufacturing: Earnings, September 1947
34 Postwar Changes in the Quality of Apparel
39 Gas and Electricity: Price Changes in 1947
40 Conference on Industry-Wide Collective Bargaining
42 Coverage of Check-Off under Taft-Hartley Act
42 Conciliation Service Arbitration Functions and Facilities
44 Output per Man-Hour in French Industry, 1938–47
45 Austrian Currency Reform and Wage-Price Stabilization
47 Labor Requirements for New Construction, 1948
48 Labor-Management Disputes in June 1948

Technical Note

50 Labor Force, Employment, and Unemployment, 1929–39: Estimating Methods

Departments

III The Labor Month in Review
54 Recent Decisions of Interest to Labor
60 Chronology of Recent Labor Events
63 Publications of Labor Interest
70 Current Labor Statistics (list of tables)

July 1948 • Vol. 67 • No. 1

This Issue in Brief . . .

QUITE THE MOST SIGNIFICANT (as well as the most unexpected) industrial relations events of 1948 is described in COST-OF-LIVING WAGE CLAUSES AND UAW-GM PACT (p. 1). The wage clauses of the new agreement contain an escalator formula based on changes in the BLS consumers' price index. This in itself is not unprecedented. The new element in the agreement was an annual increment to the hourly wage rate—imbedded in the corporation's wage structure and unaffected by fluctuations in living costs—to improve standards of living. The corporation stated that this part of the wage increase was to assure "the worker that the buying power of his hour of work will increase as the Nation's industrial efficiency improves." The article, in addition to analyzing the agreement and its immediate implications, traces the use of escalator wage-change clauses in the United States and in European countries.

One effect of the agreement was to make the BLS consumers' price index the subject of Nationwide curiosity and almost microscopic scrutiny. This is not surprising. It is now possible that a 1-point change in the index can affect the General Motors pay roll at the rate of between $4,000,000 and $5,000,000 a year. Hence THE CPI—A SUMMARY OF ITS ESSENTIAL FEATURES (p. 8) is presented to reevaluate the index in terms of what it is designed to measure, the techniques employed in its construction, its weaknesses, what is likely to influence its movements, its components and their relative importance, and what is being done and what should be done to improve it.

It might well be (and indeed frequently is) asked how alert the BLS is in keeping abreast of quality changes in the commodities priced. POSTWAR CHANGES IN THE QUALITY OF APPAREL (p. 34) is one of the types of answers which can be given. It provides a sort of natural history of the apparel industry since 1945, tracing in detail what has happened to wool, cotton, rayon, nylon, and silk fabrics, as well as leather and shoes.

Federal workers too received a kind of cost-of-living adjustment in one of the closing actions of the Eightieth Congress. Classified employees received an across-the-board annual increase of $330, and postal workers, $450. SALARIES OF FEDERAL EMPLOYEES BY MAJOR PAY GROUPS (p. 12) throws into relief the wage structure of Federal workers prior to the increases and describes the methods of determining their wage rates, the relative importance of the several group-types, and the distribution of employees by pay-fixing authority and salary range.

In an aging population the employment problem and work experience of the older worker warrant intensive and continuous study. ABSENTEEISM AND INJURY EXPERIENCE OF OLDER WORKERS (p. 16) examines the records of nearly 18,000 factory workers in diverse industries. Findings: older workers, once they were injured, took somewhat longer to recover, about their only disadvantage; as age increased, absenteeism decreased; injury frequency rates compared favorably with those for younger age groups; older workers visited plant medical clinics less frequently for treatment of ailments not directly related to work injuries.

When the Monthly Labor Review announced its changes in format and general reorganization in July 1947, it promised to develop a section devoted to discussions of techniques and methodologies applicable to Bureau series and special studies. LABOR FORCE, EMPLOYMENT, AND UNEMPLOYMENT, 1929–39: ESTIMATING METHODS (p. 50) inaugurates such a section. BLS labor force estimates for the depression decade are revised to provide comparability with the Bureau of the Census monthly labor force series which commences from 1940. The article describes the methods employed, and among other things shows, for the 1929–39 period, the estimates of unemployment made by BLS, the Alexander Hamilton Institute, the AFL, the CIO, the NICB, and Robert Nathan (as published in the Social Security Bulletin). Five reasons are listed for the marked differences between the revised BLS data and earlier estimates: better population data in recent years, a more modern concept of "gainful worker," revisions in BLS nonagricultural employment estimates, better knowledge of variations in numbers of self-employed, and better bench marks.

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The Labor Month in Review

FEW SERIOUS INTERRUPTIONS to production occurred during June 1948, one of the months of greatest economic activity since the end of the war. A slight seasonal downturn in certain nondurable industries was more than offset by increases in the outdoor industries. A number of important wage agreements granting increases to workers were reached, but a few unsettled wage situations remained in industries of vital importance to the economy. The general level of prices continued upward, a number of price increases following wage increases by certain producers. The new draft law is expected to have some impact (although limited) on the generally tight labor-market situation.

Wage Increases

Although the General Motors agreement toward the end of May was the stimulus for a number of other important wage settlements, the principle of tying wage changes to changes in the cost of living, as adopted in that contract, has not been generally followed. Several automobile companies, in addition to Chrysler, signed 2-year contracts raising wages by about 13 cents an hour. The United Rubber Workers (CIO) reached agreements with three major producers for wage increases of 11 cents an hour. In the electrical equipment industry, where union demands for increases had been turned down a few months ago, raises of 8 percent were given by two major producers. The United Mine Workers received increases of $1 per day, in their new contract, in addition to a doubling of operator contributions to the pension fund. One of the last acts of the Eightieth Congress was to pass yearly pay raises of $450 for the half million postal workers and of $330 for the 880,000 classified civil service workers.

The Bureau's preliminary estimate for gross average hourly earnings in manufacturing in mid-May was 129.9 cents, as compared with 129.1 cents in April, reflecting increases granted in the former month. Average hours worked in manufacturing industries remained practically unchanged in May at about 40 per week, while average weekly earnings were somewhat higher at $51.89.

Disagreements over wages were still unsettled in some important industries at the end of June, principally steel, railroads, and shipping. Although steel workers under their present contract have no way to enforce their demands for wage increases, the industry was reported to be considering voluntarily granting wage increases in view of the widespread raises at this time. In the two other industries the Government had exercised its authority to enjoin strikes, but the wage disputes still remained to be settled.

Industrial Relations

No strikes of national importance developed during the month, and the number of man-days lost due to work stoppages in June was less than in the past several months. However, certain possible strikes had been averted by Government action.

The Government was still operating the railroads after Presidential efforts had again failed to obtain agreement between the railroads and the three brotherhoods which had refused to accept the recommendations of the fact-finding board. Strikes were averted by temporary and later 80-day restraining orders in the dispute over the terms of the new contracts in the maritime industry. A major point of disagreement was the union demand for the retention of the hiring hall arrangement for hiring crews. The situation was further complicated by the finding of an NLRB examiner that the hiring hall clause violated the Labor Management Relations Act. A settlement of the pension dispute through a court decision in favor of the mine workers led to a resumption of negotiations between the operators and the mine workers and the speedy adoption of a new contract.

The Joint Congressional Committee on Labor-Management Relations concluded its hearings in early June on the operation of the Labor Management Relations Act. Numerous proposals for amendments to the act were considered but the committee recommended that no changes be made at this time. The amendment which appeared to receive the strongest support would have eliminated the requirement in the act for holding union-shop elections. The NLRB testified that the

overwhelming majority of these elections were favorable to the unions and that the administration of this procedure was expensive and extremely burdensome to its staff.

Paralleling its decision on pension and retirement plans, the NLRB ruled during June that employers must bargain with properly designated representatives of their employees on group health and accident insurance plans. The Board held that refusal to bargain violated parts of section 8 (a) of the Labor Management Relations Act, which required both employers and unions to bargain collectively "in respect to rates of pay, wages, hours of employment, or other conditions of employment."

A decision with possible important implications for labor and industry was handed down during June by the United States Supreme Court. The court upheld a claim by a group of New York longshoremen for overtime pay under section 7 of the Fair Labor Standards Act of 1938, which provides that employers shall pay rates of time and one-half for work done in excess of 40 hours a week. The contracts which the longshoremen have signed with the operators contain the provision that employees are to be paid time and one-half for work done before 8 a. m. and after 5 p. m. and on Saturday afternoons, Sundays, and holidays. The longshoremen claimed that this premium pay for work outside the regular contract hours should be treated as part of the straight-time rate for the purpose of computing overtime pay after 40 hours of work in a week. This contention was upheld by the court which ruled that the contract premium pay was the regular rate of pay and did not meet the excess pay requirements of section 7. In reaching its decision the Court stated that "where an employee receives a higher wage or rate because of undesirable hours or disagreeable work such wage represents a shift differential or higher wages because of the character of the work done or the time at which he is required to labor," and that such payments enter into the determination of the regular rate of pay.

Draft Law

In the closing hours of its session, the Eightieth Congress passed a new draft law designed to meet the manpower requirements of the armed forces. The law as passed makes men 19 through 25 years of age liable for military service for a period of 21 months and permits the enlistment for 1 year of 161,000 18-year-olds. Exemptions are provided on grounds of previous military service, present membership in reserve units, dependency, and occupation.

The armed forces have indicated that enlistments will be relied on to a greater extent than selective service, with only about 250,000 men called up by the draft in the next 12 months. An expansion of about 750,000 men will be required to bring the armed forces up to their authorized strength in the fiscal year 1948–49, about equal to the normal net growth in the labor force over the course of a year.

Price Changes

Several new price increases were announced during the month for certain important industrial consumer products, following wage increases granted employees. By the end of June the Bureau's wholesale price index was near the postwar high point reached in mid-January with the prospect that many prices would go higher as costs increased. An offsetting factor was the promise of a fine harvest which may mean a decline in the price of farm products in the summer and early autumn months.

The Bureau's consumers' price index again moved to a new high, reaching 170.5 percent of the 1935–39 average in May, a rise of 0.7 percent over April. Retail prices of foods increased 1.4 percent on the average, while prices of other goods, rents, and services averaged 0.1 percent higher over the month.

Construction

Construction employment and expenditures increased in May and preliminary indications are that they will be higher in June. The number of new permanent nonfarm dwelling units started in May is estimated at 97,000, probably the largest number started in any month in the country's history. Some decline in the number of starts in June is possible, judging from the decline in the number of permits issued during May. Industrial construction, in dollar amounts, has declined somewhat from the level of a year ago, but this decline has been more than offset by increases in public construction and housing.

Cost-of-Living Wage Clauses and UAW–GM Pact

The Dual-Purpose Wage Increase Combines a Living Costs Adjustment Formula with a Living Standards Increment

NELSON M. BORTZ [1]

THE GENERAL MOTORS CORP. and the United Automobile Workers (CIO) on May 25, 1948, reached an agreement providing an immediate wage increase of 11 cents an hour and thereby removed the threat of a work stoppage affecting some 225,000 auto workers. As a result of nearly 40 bargaining sessions between the parties, agreement was reached on a wage clause providing for (1) an immediate cost-of-living adjustment of 8 cents an hour and (2) an "annual improvement factor" or standard-of-living adjustment of 3 cents an hour.[2]

The wage settlement was reached just 3 days prior to the expiration of the UAW–GM contract, which previously had been extended 30 days, and climaxed several months of negotiations. It marked the first significant departure from the resistance, displayed by heavy-goods manufacturers, to a "third round" of upward wage adjustments in the mass-production industries. As outstanding as the wage increase itself were the elements in the settlement arrived at by the parties. The UAW had originally demanded an increase of 25 cents per hour (of which not more than 10 cents an hour was to be allocated to the establishment of a pension plan) plus 5 cents an hour for a comprehensive social-insurance program.[3]

Both of the components of the wage increase have significant aspects. Probably the most important feature, in the long run, is the smaller 3-cent adjustment designed, in the words of the company, to assure the GM worker "that the buying power of his hour of work will increase as the Nation's industrial efficiency improves." This adjustment—to be matched with a similar 3-cent increase a year later—is in no way conditioned upon subsequent upward or downward movements in living costs. Rather, it is a recognition that wage earners are specifically entitled to share in the benefits resulting from improved technological developments and from the growth of the national economy. It is explicitly designed to increase the purchasing power of workers in contrast with the concept of "freezing"—at a static level—of the wage earners' participation in the fruits of a dynamic, expanding economy.

The 8-cent immediate cost-of-living adjustment was granted to restore a "parity" between the

[1] Of the Bureau's Division of Industrial Relations.

[2] On May 27, GM and the United Electrical, Radio and Machine Workers (CIO) representing approximately 40,000 employees in the GM electrical division also agreed upon an 11-cent increase incorporating the wage adjustment features embodied in the UAW contract. On May 28, the UAW-CIO and the Chrysler Corp. terminated a work stoppage of about 75,000 Chrysler employees which had begun May 12 with an agreement providing for a general wage increase of 13 cents an hour. The agreement also is for 2 years (expiring August 1, 1950) and provides that wages may be reopened by either party after June 15, 1949.

[3] Other demands included equalization of rates by job classification on a corporation-wide basis; revision of existing vacation allowances to provide a minimum of 40 hours' pay to employees with 6 months' seniority and increased vacations on a graduated scale up to 120 hours' pay for employees with seniority of 5 or more years; a guaranteed workweek of 40 hours; overtime pay rates of time and a half for Saturdays, double time for Sundays, and triple time for holidays; increase in night shift premiums; elimination of merit spreads; and time off for voting in the primary and regular elections.

hourly earnings of GM auto employees and living costs as reflected by the national consumers' price index of the Bureau of Labor Statistics for April 15, 1948, compared with that for the year 1940. To maintain an equitable wage-living cost balance during the 2-year agreement period, the parties further agreed that quarterly adjustments in wages should be based upon the movement of the BLS consumers' price index. These quarterly wage reviews provide that for each increase (or decrease, as explained later) of 1.14 points of the BLS index, wages shall be adjusted by 1 cent an hour. This adjustment factor was determined by establishing a ratio between the current level of hourly earnings of GM employees (slightly less than $1.50 an hour) and the April 15 consumers' price index of 169.3 (1935–39=100).

No limit was placed upon the upward wage adjustments which may be authorized owing to subsequent increases in the cost of living. A limit or "floor" was, however, written into the agreement as regards reductions in workers' rates of pay because of declines in prices. This "floor" or downward limit was set at 5 cents an hour; no wage decrease shall occur should the consumers' price index fall below 164.7 (roughly, the level prevailing in the autumn of 1947).

Under the formula as written into the wage clause of the UAW-GM agreement, therefore, the current 8-cent cost-of-living increase can be reduced by no more than 5 cents, thus leaving a permanent residual increase of 3 cents in addition to the 3-cent "improvement" increase. In terms of the approximate average hourly earnings of GM auto workers, the agreement advances wages from $1.50 to $1.61 an hour and automatically guarantees that earnings will not fall below $1.56 an hour during the first year of the contract and below $1.59 an hour during the second year of the contract, when an additional 3 cents an hour annual "improvement" increase becomes effective.

The text of the wage clause in the UAW-GM agreement reads:

Paragraph 101

(a) All employees covered by this agreement shall receive an increase of 11 cents per hour effective May 29, 1948. Three cents per hour of this increase is to provide for improvement in the standard of living of employees and will be added to the base rate of each wage classification for the term of the agreement. Eight cents per hour of this increase is for the purpose of providing for the increase which has taken place in the cost of living. It is agreed that only 5 cents of this 8 cents will be subject to reduction so that, if a sufficient decline in the cost of living occurs, employees will immediately enjoy a better standard of living. Such an improvement will be an addition to the 3 cents an hour annual improvement factor underwritten by the Corporation and will make a total of 6 cents to be added to the base rate of each wage classification, as of May 29, 1948.

(b) A further increase of 3 cents per hour for an improved standard of living will be made in the base rate of each wage classification effective on and after May 29, 1949.

(c) These increases in base rates as provided for in paragraph 101 (a) and paragraph 101 (b) shall be added to the wage rates (minimum, intermediary and maximum) for each day-work classification. The 5 cents per hour increase for the cost-of-living allowance provided for in paragraph 101 (a) shall be added to each employe's straight-time hourly earnings and will be adjusted up or down each three months in line with the cost-of-living allowance provided for in paragraph 101 (f) and 101 (g).

(d) In the case of employes on an incentive basis of pay the increases in base rates provided for in paragraph 101 (a) and paragraph 101 (b) shall be added to the earned rate of all incentive workers until local plant managements and the local unions reach an agreement for factoring this increase into the wage structure of incentive classifications. The 5 cents per hour increase for cost-of-living allowance provided for in paragraph 101 (a) shall be added to each employe's hourly earned rate and will be adjusted up or down each three months in line with the cost-of-living allowance provided for in paragraph 101 (f) and 101 (g).

(e) The cost-of-living allowance will be determined in accordance with changes in the "Consumers' Price Index for Moderate Income Families in Large Cities"—"All Items," published by the Bureau of Labor Statistics, U. S. Department of Labor (1935–1939 equals 100) and hereafter referred to as the BLS consumers' price index.

(f) The cost-of-living allowance as determined in paragraph 101 (a) shall continue in effect until the first pay period beginning after September 1, 1948. At that time, and thereafter during the period of this agreement, adjustments shall be made quarterly at the following times:

Effective Date of Adjustment — *First Pay Period Beginning on or after:*	*Based upon BLS Consumers' Price Index as of:*
September 1, 1948	July 15, 1948
December 1, 1948	October 15, 1948
March 1, 1949	January 15, 1949
June 1, 1949	April 15, 1949
September 1, 1949	July 15, 1949
December 1, 1949	October 15, 1949
March 1, 1950	January 15, 1950

In no event will a decline in the BLS Consumers' Price Index below 164.7 provide the basis for a reduction in the wage scale by job classification.

(g) The amount of the cost-of-living allowance which shall be effective for any three-months period as provided in paragraph 101 (f) shall be in accordance with the following table (except that the five cent cost-of-living allowance effective May 29, 1948, will not be changed on any subsequent adjustment date unless the cost-of-living index has increased or decreased more than one full index point from 169.3). Thereafter, the table shall govern—:

BLS Consumers' Price Index	*Cost-of-Living Allowance, in Addition to Wage Scale by Job Classification*
164.6 or less	none
164.7—165.8	1¢ per hour
165.9—166.9	2¢ per hour
167.0—168.1	3¢ per hour
168.2—169.2	4¢ per hour
169.3—170.3	5¢ per hour
170.4—171.5	6¢ per hour
171.6—172.6	7¢ per hour
172.7—173.8	8¢ per hour
173.9—174.9	9¢ per hour
175.0—176.0	10¢ per hour
176.1—177.2	11¢ per hour
177.3—178.3	12¢ per hour
178.4—179.5	13¢ per hour
179.6—180.6	14¢ per hour
180.7—181.7	15¢ per hour
181.8—182.9	16¢ per hour
183.0—184.0	17¢ per hour
184.1—185.2	18¢ per hour
185.3—186.3	19¢ per hour
186.4—187.4	20¢ per hour
187.5—188.6	21¢ per hour
188.7—189.7	22¢ per hour

and so forth with one cent adjustment for each 1.14 point change in the index.

(h) The amount of any cost-of-living allowance in effect at the time shall be included in computing overtime premium, night shift premium, vacation payments, holiday payments, and call-in pay.

(i) In the event the Bureau of Labor Statistics does not issue the Consumers' Price Index on or before the beginning of the pay period referred to in paragraph 101 (f), any adjustments required will be made at the beginning of the first pay period after receipt of the index.

(j) No adjustments, retroactive or otherwise, shall be made due to any revision which may later be made in the published figures for the BLS Consumers' Price Index for any base month.

(k) The parties to this agreement agree that the continuance of the cost-of-living allowance is dependent upon the availability of the official monthly BLS Consumers' Price Index in its present form and calculated on the same basis as the index for April 1948 unless otherwise agreed upon by the parties.

Comments of Parties

Both General Motors Corp. and the United Automobile Workers explained the terms and significance of the wage settlement.

Excerpts from the statement made by GM in advancing their wage proposal follow.

We realize that time is running out, that you have dates that must be met.

Due to the developments in our country in the last few months it is now clear that this group * * * faces some very important decisions not only as they affect the equities of General Motors and the employees you represent, but through example, the effect of our action on other industries and labor groups; in fact, on the economies of the whole nation. This is true whether the next few days' deliberations result in agreement or disagreement.

All of us have had first-hand experience with strikes and the effect and aftermath of strikes. * * * Both the employes and the employer lose. And what is more important, the whole country loses along with them. Strikes create additional shortages and result in more inflation.

During recent months in various bargaining sessions throughout the country either labor's economic demands have been refused, no solution reached, and work is continuing under a more or less temporary basis with labor dissatisfied, or large and important strikes have been authorized and are now going on. It is clear that the men who represent industry are risking much in their efforts to prevent further inflation—in some cases reducing prices and saying 'no' to labor on their demands for increased wages. We subscribe to the importance of this point of view. At the same time we realize the very real problems the employees face in the increased cost of living. * * * Perhaps this group here has about the last chance to reach a fair and realistic agreement of the right thing to do and prevent another round of disastrous strikes such as occurred in the fall of 1945 and the spring of 1946. Perhaps the easiest thing for us to do would be to say 'no' to your economic demands. * * * This would be leaving all of the responsibility with you. We believe we should share this responsibility, and after a careful review of the whole situation we have some ideas that we think might be helpful.

The union now and in the past has interpreted the worker's problem as a dual one:

A. The problem of maintaining the purchasing power of an hour of work; in other words, protecting the worker from increases in consumer prices.

B. The problem of assuring the worker that the buying power of his hour of work will increase as the Nation's industrial efficiency improves.

The union has indicated that its economic demands were designed to deal with both of these objectives.

The facts, as reviewed, may be interpreted to support the union's contention that GM workers have been placed at a disadvantage by the fact that

consumer prices have advanced more rapidly than their hourly earnings.

It has been the record of the past that workers share in the Nation's gains of productive efficiency. That is how the standard of living of workers has been brought to new and higher levels over the years. This trend has given American workers the highest standard of living enjoyed by workers anywhere. His hour of work buys more things than an hour of work anywhere else in the world.

What must be questioned and weighed quite carefully in the best interests of all concerned—workers as well as other economic groups—is the approach to a realization of these objectives.

We have given careful consideration to this problem. * * * A broad outline of * * * conclusions follows:

1. Reestablish the buying power of an hour of work on a fair basis—in other words, what the worker has lost through increases in consumer prices during and since the war to be made up on a sound basis;

2. Protect the buying power of an hour of work against changes in consumer prices, by making cost-of-living adjustments periodically during the life of the contract;

3. Improve the buying power of an hour of work so that over a period of years the worker is assured of an improved standard of living;

4. That the relations between management and labor be stabilized over a substantial period of time.

These proposals are a real forward step. They would strengthen and improve the GM worker's economic position by making up losses in the buying power of an hour's work; protecting that standard against fluctuations in consumer prices; holding out assurance to him of a higher living standard over the years.

These proposals are an effective guarantee of steadily increasing hourly buying power for GM employes. We make them with the full knowledge that we are placing our faith in the future stability and progress of America.

We sincerely feel that, if General Motors and the UAW–CIO can reach agreement based on these objectives, it would not only be a tremendous forward step in industrial relations but would also be a great force in promoting economic stability and progress in the nation. It would be the type of industrial statesmanship needed now when, in an uncertain world, it is the responsibility of all citizens to help build the prosperity and strength of America.

John W. Livingston, UAW–CIO vice-president, and T. A. Johnstone, assistant director of the union's General Motors Department, recommended acceptance of this offer and stated:

> It is a far-reaching victory in a period when powerful and greedy forces in American finance and industry were determined to block wage increases or even reduce wages while prices continue to rise. * * *
>
> It is a victory as well for the rest of the UAW-CIO's 1,000,000 members and for all American workers because it will assist them * * * in getting a small measure of economic justice.
>
> It is a staggering defeat for the "no wage increase" policy. * * *
>
> It is a certainty that the whole of American industry * * * can absorb at least this much wage increase without passing it on to consumers in higher prices.
>
> Because that is so obviously true, the UAW-CIO at this time rededicates itself to its campaign against price increases and we call upon the whole American public to join with us in the fight to stop inflation. It is our sincere hope that it never becomes necessary to use the provisions of this agreement providing automatic increases to correspond with rises in the Bureau of Labor Statistics cost-of-living index. * * *
>
> The UAW-CIO has fought consistently and vigorously for a roll-back in prices. * * *
>
> The UAW-CIO will continue to fight on both the political and economic fronts for long-run policies necessary to insure economic stability, and expansion of our productive plant to sustain full production, distribution, consumption and employment at steadily rising standards of living for all. * * *
>
> Inflation has been given new impetus by ERP needs and the national defense program. This will temporarily conceal the fact that rising prices and lagging wages are squeezing American consumers out of the market for farm and manufactured goods. The problem of obtaining a healthy balance between wages, prices and profits is still * * * the Nation's No. 1 piece of unfinished business.
>
> Substantial as it is, the UAW-CIO regards this victory as essentially a holding operation. * * * a victory only in the context of today's economic and political reaction. * * *
>
> In the first place, the base date for measuring wages in terms of buying power is 1940, when an army of eight million unemployed provided striking testimony that wages were far too low to sustain full employment.
>
> In the second place, instead of sharing its dangerously inflated profits beyond a cost-of-living adjustment based on a depressed 1940 wage, General Motors offered an annual increase of 2 percent or 3 cents an hour as a gesture toward keeping the workers' purchasing power abreast of the increased output resulting from technological advance in the national economy. This figure itself short-changes the principle involved. But it is important that the General Motors Corporation now has conceded the principle that General Motors workers are entitled to a share in the growing output of an expanding economy. However, to establish a rate of wage increase without first establishing a healthy wage-price-profit relationship is to attempt to freeze the present unhealthy relationship in which prices and profits are too high and wages too low to maintain stable prosperity.

Third, the UAW-CIO accepts the provision for quarterly wage adjustments to correspond with changes in the BLS cost-of-living index only because most of those in control in government and in industry show no signs of acting at the public interest. They are enforcing a system of private planning for private profit at public expense.

Fourth, the assumption that workers can expect no more than to remain on the economic treadmill, inching up 3 cents an hour per year while management and stockholders reap profits proportionately far in excess of that amount is unsound and unwise. This is still the trickle-down theory of prosperity, slightly modified. * * * However, * * * General Motors has accepted the principle that prices and profits ARE a concern of labor. This is progress. We believe that in accepting it [the settlement] the General Motors workers will be making a substantial contribution to the economic health of the nation and to the welfare of their fellow Americans. We * * * shall continue to inform, educate and organize ourselves, in cooperation with other workers, farmers and men of good will, to build a nation and a world of abundance, security, and peace.

Prevalence of Cost-of-Living Adjustments

The practice of adjusting the wages of workers on the basis of changes in living costs is neither new nor unusual. The United States Anthracite Coal Strike Commission of 1902 used cost-of-living data to some extent in making its wage settlement and as early as 1910 the wage contracts of some groups of railway workers were revised to make allowance for price movements.[4]

Prior to the First World War, however, cost-of-living figures were not sufficiently comprehensive to be used effectively. During the war, more satisfactory data became available and were frequently the controlling factor in wage determinations. In the postwar years, particularly between 1919 and 1922, a number of union agreements provided that wages would be adjusted according to changes in the cost-of-living figures of the Bureau of Labor Statistics. Illustrative of the cost-of-living clauses during this period is the agreement between the Times Printing Co. and Post Intelligencer Co. and the Seattle, Washington Photo-Engravers' Union No. 23, of March 23, 1921.[5]

> It is understood that the index number for Seattle, December, 1920, as determined by the United States Department of Labor is 94.1. It is mutually agreed that should the index number for Seattle as determined by the United States Department of Labor at or about December, 1921, be 75 or less, or 113 or more, then automatically as of January 1, 1922, the wage as determined in this agreement shall be 10 percent less or 10 percent more (as the case may be) until June 30, 1922, and thereafter until a new agreement is determined upon between the parties to this agreement.

Traditionally, however, organized labor has opposed the gearing of wages to the cost of living, as a general policy. According to unions such a policy "freezes" the level of "real wages" and deprives employees from participating in the benefits of expanding business, increased productivity, and obtaining a larger share of the national income. It also tends to lower wages when prices drop. For these and other reasons, unions have regarded increases in the cost of living as only one element, but not the sole or even major factor, justifying higher rates of pay.

It is not surprising, therefore, that in 1939 about 95 percent of the approximately 7,000 agreements in the Bureau of Labor Statistics files made no provision for the adjustment of basic rates of pay during the effective period of the agreements.[6] In those contracts which might be reopened, the cost of living was the most commonly specified factor. Most of these clauses were "permissive," i. e., changes in rates of pay might be considered when either of the parties to the agreement could demonstrate that a significant change had occurred in the cost of living, prevailing wages in the area or industry, or in broader economic conditions. "Automatic" wage adjustment clauses, by contrast, specify that rates of pay shall be changed in accordance with fluctuations in the cost of living, the price of given commodities, or of profits. It is this latter (automatic) type of provision which was written into the new UAW-GM agreement. One prewar agreement in the Bureau's files combined, as does the GM agreement, periodic increases in real wages as well as cost-of-living adjustments. This contract, which covered a 5-year interval, stipulated that wages should be adjusted semi-annually to the BLS cost-of-living index; the basic rate of pay was then to be increased by 1½ percent every 6 months to provide steadily higher purchasing power.

With the acceleration of this country's defense

[4] U. S. Bureau of Labor Statistics, The Use of Cost-of-Living Figures in Wage Adjustments, Bull. No. 369, 1925.

[5] Ibid. (p. 205).

[6] See Monthly Labor Review, January 1940, Wage-Adjustment Provisions in Agreements (p. 6).

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program in 1940–41 and the accompanying advances in the cost of living, an increasing number of agreements had provided wage reopening clauses. In 1942, about 40 percent of manufacturing agreements had wage reopening provisions. Approximately a third of these agreements based wage reopening on cost-of-living changes. A few based reopening on such factors as profits, prevailing wages, etc., but the majority did not specify conditions for reopening.[7]

Under the wage stabilization program of the National War Labor Board, agreement clauses relating wage adjustments to changes in the cost of living were either eliminated or were made inoperative. This was a result of the War Labor Board's order that such clauses should not be enforced after October 1942 if the wage adjustments under an automatic escalator clause would raise rates in excess of 15 percent above the average straight-time hourly rates prevailing on January 1, 1941.[8]

The restrictions imposed by the Government's wartime stabilization program, together with labor's innate distrust of pegging wages to changes in the cost of living, combined to reduce the frequency of cost-of-living "escalator" clauses during World War II. In their place, a number of unions and employers negotiated contracts with general wage reopening provisions. Under this type of clause the employer and the workers upon due notice, or on a date specified in the agreement, are free to discuss the entire wage structure, including the factor of cost of living. Such clauses offer greater flexibility than cost-of-living escalator clauses since they do not tie the wage reopening to any specific economic factor.

The following clause, from the Carnegie-Illinois Steel Corp.-United Steelworkers of America (CIO) contract, exemplifies a general wage reopening clause:

> The terms and conditions of this Agreement shall continue in effect until Midnight April 30, 1949, provided, however, that either party may on April 1, 1948, give written notice to the other party of its desire to negotiate a general and uniform change in rates of pay. Within five (5) days after the giving of such notice, the parties shall meet for the purpose of negotiating such issue. Failing agreement on such issue on or before April 30, 1948, this Agreement shall remain in effect until Midnight April 30, 1949.

[7] Wage Adjustments to Cost of Living Under Union Agreements, May 1942, U. S. Department of Labor, Bureau of Labor Statistics.

[8] General Order 22, National War Labor Board.

Not all agreements with general wage reopening clauses (or specific cost-of-living clauses) bar strikes or lockouts if the parties fail to agree on the amount of the wage adjustment. In some cases, if disagreement persists, the issue is submitted to arbitration or to the impartial chairman provided by the contract; in other instances dissolution of the agreement may follow deadlocked negotiations. The following are examples of such clauses:

> *Reopening Geared to Cost of Living and Other Specified Factors; Wage Changes Not To Affect Employer's Competitive Position Adversely*
>
> (A) If during the term of this agreement, or any renewal thereof, there shall be any significant change in the factors upon which wages depend, either in cost of production, competitive conditions, cost of living, or inflation or deflation, either party may demand a change of existing rates, provided that said change in no wise affect the "Employer's" competitive position in relation to other * * * mills in the South. If the "Union" and the "Employer" cannot agree upon terms of such revision within fifteen days of the opening of negotiations, such matters shall be submitted to the Impartial Chairman, as hereinafter provided, for final and binding decision in the same manner as provided for the disposition of disputes, grievances, and other matters.
>
> *Maximum Amount of Increase Stipulated; Agreement Terminated Upon Notice If Negotiations Fail*
>
> (B) If any time after June 1, * * *, the parties hereto agree that living costs and area wage rates have risen substantially over the living costs and area wage rates which prevailed in November, * * * then the Union may reopen this agreement at any time thereafter by written notice to the Company for the negotiation of a non-retroactive general increase not exceeding 5¢ an hour in the wage rates fixed by Paragraph * * * but for no other purpose. Upon the giving of such notice, the parties will immediately commence negotiations in respect to an increase within the foregoing limits. If the parties are unable to agree within 30 days after the commencement of such negotiations upon a general increase within the above limits, then either party may terminate this agreement forthwith by giving written notice to this effect to the other within the next ten days.

Several examples of currently effective clauses providing for interim wage adjustments specifically based upon the BLS consumers' price index follow. These agreements make wage adjustments dependent upon somewhat broader movements of the consumers' price index than in the UAW-GM agreement.

Building Trades Employers' Association of the City of New York—Building & Construction Trades Council of Greater New York and Long Island (AFL)

The Master Agreement Trades Unions and the Master Agreement Trade Associations agree that during the period of this agreement the wage rates and hours of employment and special conditions relating to hours and wages for the Master Agreement Unions, shall be in accordance with the attached Schedule of Established Rates, including the special conditions as noted on said Schedule. In the event that the Cost of Living Index for New York City as published by the Bureau of Labor Statistics for the month of April, 1949, shall be more than 15% above the Cost of Living Index for New York City as published by said Bureau of Labor Statistics for the month of January 1948, then, and in such event, an adjustment in wages shall be made for the period from July 1, 1949, to June 30, 1950, upon the following basis, namely:

One-half (½) of the amount of the percentage in excess of said 15% shall be multiplied by a three ($3.00) dollar hourly rate and then corrected to the nearest multiple of five cents (5¢). The amount resulting shall then apply uniformly to all Master Agreement Trades and be added to the hourly wage rate for the period from July 1, 1949, to June 30, 1950. In the event that the Cost of Living Index as stated above is less than 15% above the Cost of Living Index as stated above, then, and in such event, there shall be no change in the wage rates for any of the individual Master Agreement Trades Unions during the period of this agreement.

Security Storage Company-International Brotherhood of Teamsters, Chauffeurs, Warehousemen & Helpers of America (AFL)

The wage schedule as to packers, packing helpers, warehousemen, drivers, and helpers, but not as to extra men, shall be reviewed quarterly beginning with April 1948. If the Consumers' Price Index of the Bureau of Labor Statistics of the U. S. Department of Labor has varied 3 percent or more from said Price Index of January 15, 1948, then the said wages shall be increased accordingly. Fractional increases of ½ percent or less shall not be considered. Fractional increases of more than ½ percent shall be considered as one whole point. Similarly, after increases in wages based on increases in said Price Index, there may be decreases calculated in the same manner, but no decreases below the wages agreed on as above listed.

Should this agreement be for a 3-year period or should it later be extended to cover a 3-year period, the Company shall have the right to renegotiate the wage scale if the above-mentioned Price Index shall have dropped 5 percent or more below the Price Index of January 15, 1948.

Cost-of-Living escalator clauses have been widely used in Europe. In Great Britain [9] cost-of-living adjustments were extended during World War II. The method had been even more widely practised after the end of World War I but during the interwar period its popularity declined. There is no uniformity in these agreements with respect to the steps in the scale at which wage changes are to be made or to the amount of the wage adjustment to be made.

Wages of nearly all industrial workers in the Scandinavian countries have been adjusted at times during the recent war and postwar periods in part by means of escalator clauses in master agreements between the central federations of employers and trade-unions. Although the sliding scale adjustments were abandoned in Sweden in December 1946, such provisions are still maintained in Denmark [10] and Norway under terms of the basic agreements in the respective countries. In Norway, each upward adjustment requires approval of a governmental Wage Board set up under anti-inflation legislation adopted in 1945. In nearby Finland, sliding scale arrangements are provided in collective agreements which cover practically all industry. The Cabinet in October 1947 issued a decree indicating the extent of adjustments which are permitted if the index rises by specified amounts.

Wages of workers in Switzerland [10] and in Italy have also been augmented during the war and postwar period by cost-of-living supplements which were based on the movement of the cost-of-living index.

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[9] Ministry of Labor Gazette, June 1944 (p. 94).

[10] See Monthly Labor Review, March 1948 (p. 295 and p. 299).

The CPI—A Summary of Its Essential Features

EWAN CLAGUE [1]

THE CONSUMERS' PRICE INDEX has always been the most popular series of the Bureau of Labor Statistics. Each month it is received by a mailing list of nearly 14,000 names. Countless thousands are apprised of its release through the daily newspapers and important business and news magazines. In any given month, in excess of 3,000 special requests for consumers' price information are received. Hence the index was a going concern enjoying a hardy popularity even before the General Motors-United Automobile Workers agreement [2] recently made it almost a household byword.

The use of the index in this agreement, involving some 225,000 automobile workers (plus about 40,000 additional General Motors workers covered by a separate but identical wage agreement with the CIO United Electrical Workers) has stimulated a new wave of public interest. The index has been described publicly many times and in great detail.[3] However, it seems to us in the Bureau that it would be useful to summarize briefly at this time, in simple language, some of the essential facts concerning the index, its compilation, and its meaning.

Movements of the Index

Since the spring of 1940, the index has, in general, been rising, faster in some periods, more slowly in others and with occasional declines for sho periods. The base of the index (100) is the ave age for the 5-year period 1935–39, when the inde was compiled once a quarter. In the latter pa of 1940, when the National Defense Program we into operation, the index was shifted to a monthl basis, but at no time during 1940 did it reach mo than a fraction of a point above 100. Durin 1941–42 and until the establishment of price con trol early in 1943, it rose more sharply, at the ra of about 10 percent per year. For the next years it climbed at a much slower rate, less tha 7 percent for the entire 3 years. It stood at 133. in June 1946.

With the elimination of price controls and sub sidies during the second half of 1946, the inde climbed 15 percent (20 points) in 6 months t 153.3 in December 1946. After a little hesitatio in the opening months of 1947, the rise continue to the end of the year—to 167.0 in December Again in the early months of 1948, the index dip ped briefly, but quickly resumed its rise an reached a new all-time high of 169.3 in April This is the month which was taken as a starting point for the General Motors-UAW contract.

So much for the movements of the index as a whole. There have been sharp differences in the several groups of commodities which make up the index. The greatest increase has been in foods which have recently risen to more than 210, which means an increase of 110 percent above the 1935–39 base. The least increase has been in rent, which in 1948 has averaged about 116—only 16 percent above 1935–39. The apparel (clothing) index has recently gone above 197, while that for the miscellaneous group is about 147.

The seasonal swing in the prices of certain foods is a smaller but perhaps equally noticeable movement over short periods. The food index as a whole generally reaches the low point of the year in March, then rises 3 to 4 percent to a high about September. This means that during the summer months of 1948 the food index would normally rise and, since food has a heavier weight than any other group in the index, would, other factors being equal, tend to carry the whole index upward. Obviously, a change in the crop outlook could alter the picture.

Among the foods, meat shows a high seasonal variation, rising as much as 9 or 10 percent from a low in February to a high in September. This

[1] U. S. Commissioner of Labor Statistics.

[2] See Cost-of-Living Wage Clauses and UAW-GM Pact, this issue (p. 1), for a complete analysis of this agreement, its significance, and a general review of escalator clauses in the United States and abroad.

[3] See Bureau of Labor Statistics Bulletin No. 699 and Report of the President's Committee on the Cost of Living, Office of Economic Stabilization, Washington, 1945.

e is an important influence in the seasonal in-ase of the whole food index during that same riod. Dairy products generally reach their low int of the year in June and rise about 7 to 8 rcent to a high in December. Eggs have per-ps the most spectacular seasonal fluctuation though their weight in the index is not so large), ing about 45 percent from the low point in April a high in November. A counter seasonal end is discovered in fresh fruits and vegetables, hich reach their high point in June and fall about 5 percent to a low in November when the crops ve been gathered.

In summary, then, it may be said that because of e influence of food, the consumers' price index as whole would tend to move slightly upward from e early spring to the early fall and then drift ightly downward during the autumn and winter onths. These seasonal movements, however, n be, and often are, counterbalanced by other hort-term influences (such as the success or failure f crops) or by longer-range influences.

The Structure of the Index

The general purpose of the index is to represent he changes in the prices of a *specific, fixed* market asket, or shopping list, of goods and services ought by moderate-income urban (large city) onsumers. Thus, the market basket remains onstant for a considerable period of time, while he index reflects the changes in the prices of the rticles included.

Public understanding of the index has been confused by the use of the term "cost of living" index to describe it. Among the factors which enter into changes in the "cost of living," this index measures only one: price. The index has been judged to provide "an acceptable approximation" of change in "the cost of living for urban workers" over short periods of time.[4] The most precise and most accurate title for the consumers' price index is that which was applied to it more than 10 years ago: "Changes in the Cost of Goods and Services Purchased by Wage Earners and Lower-Salaried Clerical Workers in 1934–36." This has since been shortened to "Consumers' Price Index for Moderate-Income Families in Large Cities."

[4] See An Appraisal of the U. S. Bureau of Labor Statistics Cost-of-Living Index by a Special Committee of the American Statistical Association, in Journal of American Statistical Association, December 1943 (pp. 387-405); also Report of the President's Committee on the Cost of Living, Office of Economic Stabilization (U. S. Government Printing Office), 1945.

How do we know what goods and services in what quantities are bought by moderate-income families? The answer is that the Bureau obtains such information from the families themselves. In 1934–36 a comprehensive study of some 14,500 families was made. Records were made of the kinds, qualities, amounts, and prices of foods, shoes, suits, furniture, and all categories of family expenditures.

The index is based on the experience of families in the middle income groups, excluding those at the lowest and highest extremes of the income scale.

American families buy more than 1,400 different articles and services, and each of the 1,400 may appear on the market in at least several different qualities. But it is not necessary for the Bureau to face the stupendous task of pricing all of them each month. Thr Bureau selects about 200 items whose price movements are representative of all 1,400 items. For example, the price movements of fresh milk can be used to typify those of buttermilk and various other milk products; those of round, chuck, rib roast and hamburger can be used to represent all beef products; doctors' fees for appendix and tonsil operations can represent changes in the fees for all surgical operations.

Objection may be made that some of the missing 1,200 items may change in price differently from the 200 included. Of course they may, especially over short periods of time. But it has been our experience that average prices of commodities within a class tend to move together, so that a few well selected articles can safely be used to represent the class. Furthermore, if several articles in a group are of outstanding importance in family purchases, like round steak and chuck roast, these important articles are all included even though statistically price changes for one are similar to price changes for the others. As a result, the index for the 200 commodities and the major components (food, apparel, housefurnishings, etc.) represent the price changes of all articles purchased by moderate-income consumers.

Another problem in the collection of prices is the matter of quality. The price of pork chops can vary considerably, depending on how near the center of the loin they are cut. If center-cut pork chops are priced one month and end-cut the next month, the price of pork chops might seem to have gone down. But in fact this would reflect a differ-

ence in quality, not a change in price. In attempting to hold quality constant in measuring price changes from month to month, the Bureau draws up detailed specifications to describe the qualities of the articles priced each month. These specifications are carefully built up with the advice of manufacturers and retailers who know these commodities. For example, here is a specification for one of the men's shirts priced:

SHIRT:
Business, broadcloth, nationally advertised

STYLE:
Collar attached; may or may not have fused collar.

FABRIC:
Cotton; broadcloth; white.
Yarn: Combed.
Number of threads per inch:
Warp: 128 or 136
Filling: 68 or 60
Finish: Sanforized shrunk.

CONSTRUCTION:
Full cut; clean workmanship; 31 to 32 yd./doz. based on 36-inch fabric and neckband size scale 14 to 17.

BRAND:
Manufacturer's brand, nationally advertised.

When Bureau agents price these shirts for the index they make sure that the shirt actually found in the reporting store falls within this specification.

The Bureau is constantly reviewing its specifications to make sure that they are representative of the articles being bought by consumers. It is necessary to do this because people's buying habits change. Sometimes it is necessary to discontinue pricing one article and to substitute another which is its equivalent in utility and price movement. Thus, silk hosiery has declined in importance while nylon has greatly increased. Therefore, the Bureau has substituted nylon price quotations for silk. [5]

In one of the early consumer expenditure studies (1889–90), lamp chimneys constituted one of the significant articles; in 1948 this is represented by electric light bulbs. In 1890 tin cups and scarlet drawers, the more dignified name for the old red flannels, were priced. These items have not survived into 1948.

The Administration of the Index

The price collection work for commodities other than food is conducted by 30 full-time field agents. These agents are carefully chosen through the Federal Civil Service system and undergo a 4-week course of training before being allowed to collect price information.

Rent information is collected directly by the agents from a sample of renting families. Once a year a Bureau agent goes in person to the home; then for three subsequent quarters, the Bureau collects rent reports by mail, followed at the end of the year by another visit to the home. A few prices can be collected by mail entirely, for example, local streetcar fares or public utility rates which change only occasionally and which are officially maintained for public scrutiny by State public service commissions.

Food prices are collected by 125 part-time agents, usually housewives, school teachers, or ex-government employees, who have the qualifications to meet civil service requirements for work of this kind. They are people who live in the community and visit local stores around the middle of each month to price the 50 articles on which the food index is based.

The stores where the prices are obtained have been carefully selected to represent the places where moderate-income families purchase the bulk of their consumption goods. Both chains and independents and department and specialty stores are represented.

Occasionally someone studying the index will compare the range of prices shown by the Bureau for typical foods (say, a pound of butter) with the prices shown in newspaper advertisements. He may find that butter prices in the ads are at the very bottom of the range of butter prices reported by the Bureau. This, however, is not a fair comparison. The items advertised are likely to be those on which prices are relatively favorable; stores commonly do not advertise those items on which their prices are higher than competitors. Furthermore, chain stores, which are largely self-service, have generally lower prices than neighborhood stores which provide more delivery and credit services. But, as a matter of fact, no one store is ever low on all prices. It is very easy to pick out from newspaper advertisements a list of the cheapest prices obtainable—"shopping around" by a housewife can produce lower costs for the family. But the act of shopping around requires both time and expense.

In actual fact, people do buy in both the chain

[5] See Postwar Changes in the Quality of Apparel, this issue (p. 34).

nd the neighborhood grocery stores. The Bu-eau makes periodic checks as to the proportion f groceries sold in these outlets in each city. rices are obtained from both and, in arriving at n average, are weighted according to the propor-ion of sales of each. If American families shift nore of their buying to chain stores, the Bureau ssigns a heavier weight to chain-store prices. f, on the other hand, the return of delivery ervice or other changes cause an increase in uying in neighborhood stores, then the Bureau ill weight the prices accordingly.

Currently the consumers' price index is based pon prices in 34 large cities. (There are 22 dditional cities which are priced for food only.) t one time during the war, the Bureau prepared ndexes for 75 cities, including smaller ones, but ver 40 of these were dropped in the cut-back in he Bureau's work in recent years, although the need is recognized for the addition of smaller ities if the index is to be representative of all rban communities.

This does not mean, however, that the index s presently constituted is not reasonably repre-sentative of the changes in consumer prices for moderate-income urban families. These 34 cities (and their immediate environs) contain approxi-mately 60 percent of the total population of the large cities in the United States. So the bulk of the urban working population is in fact covered by the index.

The Construction of the Index

What quantities of various commodities and articles actually go into the market basket, or the shopping list? As stated previously, the quanti-ties used in the computation of the index for each city are based upon the 1934–36 actual purchases of that city's families in terms of pounds, yards, cans, dozens, etc. These quantities have been kept constant since that time. When the quanti-ties of each item are multiplied by their average prices in the period 1935–39, the total makes up the cost of the market basket in the base period (which we call 100). These same quantities, mul-tiplied by their average prices in May 1948, add up to the current cost of the market basket. This recent cost is about 70 percent higher than the average for 1935–39. Therefore, the index in May 1948 was about 170.

The quantities in the market basket have been held virtually unchanged for more than a decade, but we know that incomes have risen, and con-sumers may have changed their pattern of expen-ditures. Thus, they might buy larger quantities of food but still spend a smaller proportion of total expenditures for food and more for rent, clothing, amusements, etc. How does the Bureau take such changes into account? The method of meeting this problem is to check periodically on the buying habits and expenditure patterns of moderate-income urban families. Beginning in 1945, the Bureau has conducted studies of a small sample of families in 3 cities each year. In these studies it discovers what articles and in what quantities people are actually buying. In the postwar period a total of 9 cities have been com-pleted, and it is planned to do 3 more in 1949. The findings are analyzed to determine the extent to which the buying habits of American families today differ from those of 12 to 14 years ago. The results may necessitate revision of the weights which are used in the computation of the index. If the studies show that these changes would have an important effect on the index, we may have to speed up the sample studies, doing more than 3 cities each year, or perhaps doing all 34 cities simultaneously as was done in 1934–36.

Public Information on the Index

The methods used by the Bureau in compiling the consumers' price index, manuals of specifica-tions, procedures, and agent training methods are open to public inspection by anyone with a genuine interest in the index. While some of the processes employed are rather technical, they are neither mystifying nor difficult to understand.

Because the index, like the other work of the Bureau, serves the needs of all sections of the public, an effort is made to provide as much infor-mation about it as possible. The Bureau has a Labor Research Advisory Committee, consisting of research directors of a representative list of unions, and a Business Research Advisory Com-mittee, composed of management research men. Each committee meets periodically to review the work and program of the Bureau in conjunction with the staff. Similarly, outside technical ad-visory committees are consulted. In all cases, it is understood that representations and opinions of outside groups are purely advisory, with final authority remaining in the Bureau itself.

Salaries of Federal Employees by Major Pay Groups

LUCILE C. URSELL AND JOHN W. MITCHELL [1]

IN JULY 1947, the average annual pay rate of Federal employees was $2,839, an increase of $170, or 6.4 percent, over the July 1946 average.[2] Employees in positions under the Classification Act of 1923 as amended had an average salary in July 1947 of $3,006,[3] postal employees, $2,835, and wage-board employees (i. e., those in mechanical and laboring positions for which rates are set by wage boards, in accordance with locally prevailing rates), $2,529.

Wage-board and Classification Act employees during the 13-month period had approximately the same gain, $147 and $150, respectively, compared with $84 for Postal Pay Act workers.

The above averages represent rates of compensation in terms of the annual equivalent for a 5-day 40-hour week for the 52 weeks of the year. Because of working less than a full-time schedule, many employees, particularly those in wage-board and intermittent positions would not have earned the full amounts used for them in this article.

[1] Of the Bureau's Branch of Employment Statistics and the U. S. Civil Service Commission, respectively.

[2] Data are from two surveys made by the U. S. Civil Service Commission. Each agency in the executive branch of the Federal Government reported to the Commission the number of its employees within continental United States as of July 1, 1946, and July 31, 1947, by salary level and pay-fixing authority. Base salaries only were reported—that is, salaries exclusive of premium pay for overtime, night work, etc., and other allowances. (For the Navy Department, an adjustment was required to eliminate such premium pay from wage-board salaries in July 1946.)

For a more detailed analysis of salaries in the four main services under the Classification Act of 1923 as amended, including comparisons with earlier surveys, see Salaries of Federal Employees, July 1945-July 1947, in the March 1948 Monthly Labor Review, and Pamphlets 32 and 33 published by the U. S. Civil Service Commission.

[3] Average for the four main services under the Classification Act of 1923, excluding the clerical-mechanical (C-M) service. Inclusion of the C-M service would lower the average to $3,002.

Private and "Real" Federal Earnings

During the period July 1946 to July 1947, the straight-time hourly earnings of production workers in manufacturing industries showed a gain of 13 cents an hour, or 12.3 percent.[4] Living costs, as measured by the Bureau of Labor Statistics consumers' price index for large cities, rose 12.9 percent. Thus, the gain in private manufacturing was roughly commensurate with the increase in living costs, whereas the average Federal salary, with its over-all increase of 6.4 percent, lagged considerably behind both. In terms of consumers' goods that could be bought, the average Federal salary (in 1946 dollars) actually declined $154 between July 1946 and July 1947.

Comparisons of purchasing power of the average Federal salary at the time of the two surveys with that in 1939, are shown in table 2. In 1939 dollars, only the employees whose salaries are determined administratively or by special statutes had a higher average salary in 1947 than in 1946, and, as shown later, the largest part of this group's salary gain was directly traceable to changes in agency and occupational composition in the two survey periods. The increased dollar salaries of all of the other groups actually result in decreases

TABLE 1.—*Employment and average annual salaries in the Federal Executive Service, by pay-fixing authority, July 1946 and July 1947* [1]

Pay-fixing authority	Employment			Average annual salary		
	Amount		Percent change	Amount		Percent change
	July 1947	July 1946		July 1947	July 1946	
All groups	1,660,109	2,145,191	−22.6	$2,839	$2,669	+6.4
Classification Act of 1923 [2]	827,855	1,037,928	−20.2	3,002	2,853	+5.2
Wage board	455,617	661,555	−31.1	2,529	[3] 2,382	+6.2
Postal Pay Act	310,620	324,189	−4.2	2,835	2,751	+3.1
Other statutes and administrative determinations	66,017	121,519	−45.7	2,952	2,442	+20.9

[1] Excludes Board of Governors of the Federal Reserve System, substitute employees of the Post Office Department, personnel in the Maritime Training Program of the Maritime Commission, and certain employees on piece-rate, per-diem, commission, or fee basis.

Annual salary rates were secured for employees paid on a different basis by assuming a 5-day, 40-hour week and a 52-week year, and multiplying their rates by the appropriate factors. For example, a salary of $1.00 an hour would be $2,080 a year; a salary of $10.00 a day would be $2,600 a year.

[2] Includes employees in the clerical-mechanical (C-M) service whose rates are on an hourly basis. They totaled 3,836 in 1947 and 4,390 in 1946. Employees in grade 9 of the professional and scientific service and grade 16 of the clerical, administrative, and fiscal service are shown under the "other" group because their rates are determined individually by Congress.

[3] Includes average salary for Navy Department employees of $2,642, which is exclusive of premium pay, such as for overtime.

[4] In making these comparisons between Federal and private average salary gains, it should be noted that private employment was remarkably stable during this period (it rose 4 percent), whereas Federal employment underwent considerable changes in size and character (it declined by almost one-fourth).

hen converted into 1939 dollars. Taking into ccount retirement and income-tax deductions, the ingle worker at the average salary ($2,839) re-eived in 1939 dollars only $1,477 in July 1947 nd $1,530 in July 1946; the married worker with wo children received $1,627 in July 1947 and $1,731 in July 1946.

TABLE 2.—*Average annual salaries of Federal employees in current and 1939 dollars, July 1946 and July 1947*

Pay-fixing authority	Current dollars			Average 1939 dollars		
	Gross	Net spendable [1]		Gross	Net spendable [1]	
		Single worker	Family of 4		Single worker	Family of 4
	July 1947					
All employees	$2,839	$2,306	$2,592	$1,782	$1,447	$1,627
Classification Act of 1923	3,002	2,430	2,719	1,884	1,525	1,706
Wage board	2,529	2,065	2,350	1,587	1,296	1,475
Postal Pay Act	2,835	2,302	2,588	1,779	1,445	1,624
Other statutes and administrative determinations	2,952	2,392	2,680	1,852	1,501	1,682
	July 1946					
All employees	$2,669	$2,174	$2,459	$1,879	$1,530	$1,731
Classification Act of 1923	2,853	2,316	2,602	2,008	1,630	1,832
Wage board [2]	2,382	1,951	2,236	1,677	1,373	1,574
Postal Pay Act	2,751	2,238	2,523	1,937	1,575	1,776
Other statutes and administrative determinations	2,442	1,997	2,282	1,719	1,406	1,606

[1] Net spendable earnings or income represent that part of a worker's salary that is left after income tax and retirement contributions have been deducted.
[2] See table 1, footnote 3.

Distribution by Salary Group

More than two-thirds of all Federal employees in both July 1946 and July 1947 were in the salary groups between $2,000 and $3,500. Postal employees showed the greatest concentration—over 80 percent—within this range in both periods; although, as a result of receiving an annual increment of $100, a large proportion of the employees shifted from a lower to a higher class within this range. Compared with the other three employee groups, however, postal employment was relatively steady during the period, thus allowing less opportunity for change. The wage-board group was next in degree of concentration, with 70 percent and 75 percent of the employees receiving between $2,000 and $3,500 in 1946 and 1947, respectively. Over three-fifths of the Classification Act positions were within this salary range in both survey periods.

Wage-board and Postal Pay Act groups tapered off sharply above the $3,500 level, though each group had some employees in the upper brackets. The smaller number of employees at the higher salary levels is accounted for by the fact that those in higher-grade technical and administrative positions are in either the Classification Act or "other" groups.

At the lower end of the salary scale—less than $1,000 a year—are a small number of employees who, it is probable, had appointments for part-time work only.

Statutory Salary Rates

Although the average Federal salary increased between 1946 and 1947, nearly three-fourths of the salary rates are established by statutes which remained unchanged during that period.[5] The gains for the statutory-rate groups must be attributed, therefore, partly to within-grade salary increments,[6] which are granted periodically to most statutory-rate employees who perform their duties satisfactorily, and partly to changes in the occupational structure. The latter changes were largely caused by the abolition of entire agencies or by drastic work-force reductions during the period between the two surveys.

The within-grade increments range, for positions under the Classification Act, from $66 [7] in some of the lower grades to $299 in the top grades, or from 8 percent of annual salary at the CPC–1 level to 3 percent at the middle and upper-grade levels. Over half of the employees in Classification Act positions receive an annual within-grade increase of $75 or less. Thus about half of the average $150 gain for this group over the 13-month period can be assumed to result from within-grade salary increases. A precise figure cannot be given because of the influence of employment turn-over, which tends to reduce the number of employees

[5] Most of the employees with statutory salary rates are in positions subject to the Classification Act of 1923 as amended, in services classified as professional and scientific (P); subprofessional (SP); clerical, administrative, and fiscal (CAF); crafts, protective, and custodial (CPC); and clerical-mechanical (C-M). In July 1947, about 20,000, or 1 percent, were in positions subject to other statutes, including several hundred individual positions, positions in this country in the Foreign Service of the State Department, the Immigration and Naturalization Service (Justice Department); doctors, dentists, and nurses in the Veterans Administration; customs clerks, White House and park police and secret police (Treasury Department); and the commissioned officers of the Coast and Geodetic Survey (Commerce Department).

[6] Employees in grades 4 to 8 of the professional and scientific service and grades 11 to 15 of the clerical, administrative, and fiscal service receive within-grade salary increments every 18 months. All others receive such increments every year..

[7] This disregards the maximum increment of $25 in the few P–8 and CAF–15 positions, a result of the statutory limitation on classified salaries of $10,000 a year.

receiving within-grade increments. Most postal employees receive an annual increment of $100 until the maximum for the position is reached; therefore it is safe to assume that the average salary increase for this group was largely the result of these increments.

Although it is difficult to measure the influence of changes in occupational structure on average salaries, it is certain that considerable change in employment such as that which occurred during the period between the two surveys, result in fundamental shifts in occupational composition which in turn affect average salary levels.

For example, the gain of $510 (or 20.9 percent) in average salary of the group which excludes classified and postal employees can be attributed principally to the changed occupational structure. Several agencies which in July 1946 had a large number of relatively low-grade employees in this group either were abolished or had their staffs curtailed drastically during the 13-month period. This tended to raise the average salary in 1947. The OPA, with 9,000 employees in this group in 1946, had dropped out of the picture entirely by July 1947; the employment offices of the U. S. Employment Service, with 23,000 employees in the group, were returned to State control; and the number of such employees in the Selective Service System [8] dropped by 11,000. By elim inating the influence of these changes and thos in the Veterans Administration (its employees i this group—predominantly doctors, dentists, an nurses—doubled in number during the 13-mont period), the average increase in pay of this grou would be only $175, or 6.9 percent.

None of the increase in average salary of statu tory rate employees can be attributed to pro motions, although employees who are qualifie by education and experience for more difficul and more responsible work may be promoted t higher-grade positions as vacancies occur. The promoted employee's personal or family income is thereby increased, but the salary rates for the two positions involved do not increase. In fact, they may actually decrease if the two former incumbents received salaries above the minima for the grades and the new incumbents were promoted to the minima.

Wage-Board and Other Pay Rates

One-fourth of the Federal workers were in positions for which wage rates are adjusted from time to time to keep them in line with rates for similar jobs in private industry. "Wage board" em-

[8] Renamed, in April 1947, the Office of Selective Service Records.

TABLE 3.—*Percentage distribution of federal employees by pay-fixing authority and basic annual salary group, 1946–47* [1]

Salary group	July 1947					July 1946				
	Total	Classification Act of 1923 [2]	Wage board	Postal Pay Act [3]	Other	Total	Classification Act of 1923 [2]	Wage Board [4]	Postal Pay Act [3]	Other
Under $500	0.3		0.2	0.6	3.9	0.2		(5)	0.5	2.3
$500–$999	.7		.1	2.7	3.6	.5		0.1	2.6	2.0
$1,000–$1,499	1.7	(5)	2.3	2.0	16.8	1.4	0.1	1.0	1.9	14.0
$1,500–$1,999	12.0	13.5	16.2	2.4	9.3	17.0	16.4	25.5	2.1	15.6
$2,000–$2,499	29.4	36.4	31.9	10.6	11.4	34.3	40.0	32.2	17.2	41.7
$2,500–$2,999	22.3	16.1	33.5	23.3	19.5	25.8	14.4	31.8	56.7	8.0
$3,000–$3,499	16.7	8.7	10.0	49.4	8.9	8.1	8.8	6.1	10.7	5.1
$3,500–$3,999	5.9	6.5	4.2	6.8	6.7	4.5	5.4	2.3	6.2	3.2
$4,000–$4,499	4.2	7.2	1.0	1.3	3.8	3.4	5.9	.7	1.2	2.1
$4,500–$4,999	2.5	4.3	.4	.5	3.0	1.8	3.2	.2	.5	1.4
$5,000–$5,499	1.0	1.7	.1	.2	1.6	.8	1.4	(5)	.2	1.2
$5,500–$5,999	1.2	2.0	.1	.1	3.5	.8	1.5	.1	.1	.8
$6,000–$6,499	.6	1.1	(5)	.1	.9	.5	.9	(5)	.1	.8
$6,500–$6,999	.2	.4	(5)	(5)	.7	.1	.3	(5)	(5)	.5
$7,000–$7,499	.6	.9	(5)	(5)	2.5	.4	.9	(5)	(5)	.4
$7,500–$7,999	.2	.3	(5)		.5	.1	.1	(5)		.3
$8,000–$8,499	.3	.5	(5)	(5)	1.5	.2	.4	(5)	(5)	.2
$8,500–$8,999	(5)	.1			.2	(5)		(5)		.2
$9,000–$9,499	(5)	.1	(5)	(5)	.2	(5)	.1	(5)	(5)	.1
$9,500–$9,999	.1	.1	(5)		.6	(5)	.1	(5)		.1
$10,000 and over	.1	.1	(5)	(5)	.9	.1	.1	(5)	(5)	.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[1] See table 1, footnote 1.
[2] See table 1, footnote 2.
[3] Covers only regular employees in the field service. Positions in the departmental service are under the Classification Act of 1923, as amended. Substitute employees are excluded.
[4] Includes Navy Department employees distributed by salary group in accordance with the 1947 pattern. This was done because detailed salary information for 1946 was not available and because, few rate changes having occurred in the interim, the 1946 average excluding premium pay (such as for overtime and night differential) was only $10 less than in 1947.
[5] Less than a tenth of 1 percent.

ployees (so called because wage boards determine their pay rates) are predominantly in mechanical and laboring positions, such as carpenter, plumber, and machinist.

Changes in wage-board rates during the 13-month period are shown by the experience [9] of the War and Navy Departments, which together employed 94 percent of the total in this group in July 1946 and 88 percent in July 1947.

In March 1946, the Navy Department gave its wage-board employees an across-the-board increase of 18 cents an hour. From then until late in 1947, when a new rate schedule covering each area of Navy employment became effective, no general rate change occurred, and only a few individual adjustments were made. The period from July 1946 to July 1947, therefore, was one of relative stability in Navy wage-board pay rates.

In April 1946, the War Department granted to its wage-board employees an across-the-board increase of 12 cents an hour. In addition, the War Department made a number of rate changes, which appeared from its local surveys to be necessary to match private-industry rates, averaging between 3 and 15 cents a hour for the 13-month period under study.

The effect of these rate changes are evident in the annual equivalent salary rates [10] in the July 1946 and July 1947 salary surveys, though they are obscured by changes in volume of employment and in occupational composition. The average wage-board salary rose, between the two periods, from $2,642 [11] to $2,652 for the Navy Department and from $2,166 to $2,407 for the War Department. These changes were accompanied by employment declines of 25 percent (from 293,000 to 218,000 persons) in the Navy Department, and 44 percent (from 332,000 to 184,000) in the War Department.

Approximately 2.5 percent of all Federal employees have their pay rates fixed administratively.[12] Adjustments in these rates can be made at any time that conditions warrant. Grades which are established by Executive Order, however, generally have their rates changed whenever Classification Act rates are changed and in the same amounts or proportions. Some of the other employees in this group, e. g., cotton reporters and enumerators for the Census Bureau, probably have only temporary employment, while others, such as the lightkeepers and attendants of the Coast Guard (Treasury Department) probably are on a regular part-time basis. Because the jobs in this group varied greatly and were scattered among many agencies, rate changes during the period considered were not ascertained.

Basis of Salary Payment

In July 1947, almost three-fourths of all appointments stated salaries in annual terms (table 4). The remaining appointments were split roughly half and half between daily and hourly methods of wage payment; less than 1 percent quoted monthly, biweekly, or weekly salaries.

The annual group was weighted heavily by employees in positions under the Classification Act of 1923 and the Postal Pay Act, practically all of whom were paid annual rates. The daily and hourly rate groups, on the other hand, were primarily those whose pay was fixed by wage boards.

TABLE 4.—*Percent distribution of employees in Executive Branch of Federal Government by basis of salary payment, July 1947* [1]

Pay-fixing authority	Basis of salary payment			
	Total [2]	Annual	Daily	Hourly
All employees	100.0	72.6	13.6	13.6
Classification Act of 1923 [3]	100.0	99.5	.....	.5
Wage board	100.0	7.6	47.4	44.7
Postal Pay Act	100.0	96.4	.....	3.6
Other statutes and administrative determinations	100.0	70.9	14.4	11.6

[1] See table 1, footnote 1.
[2] Because of their small size, the monthly, weekly, and biweekly groups have been omitted from the table; therefore, the sums of the distributions are slightly less than the totals.
[3] See table 1, footnote 2.

[9] For a discussion of the methods by which wage-board rates are equated with those in private industry, see Determination of Wage Rates for Mechanical and Laboring Positions in the Federal Service, Monthly Labor Review, November 1944 (p. 1063).

[10] Most wage-board employees have their salaries stated in daily or hourly rates. Assuming a 5-day, 40-hour week and a 52-week year, the annual equivalent salaries were computed by multiplying the hourly rates by 2,080 and the daily rates by 260.

[11] The average salary actually reported by the Navy Department for its wage-board employees in July 1946 was $2,766, but included overtime and other premium payments. The average rate without such premiums was $2,642.

[12] Although discussed separately here, employees whose pay rates are determined administratively are grouped in the tables with those whose rates are determined by statutes other than the Classification Act of 1923 as amended and the Postal Pay Act.

Absenteeism and Injury Experience of Older Workers

MAX D. KOSSORIS [1]

IN MODERN INDUSTRY it is common to regard the worker of 45 or more as "old." Should a man of 45 be so unfortunate as to lose his job and be compelled to find another, he will find the task much more difficult than a man of 30.

In part, the reason for this discrimination is that the work to be performed may call for the agility and stamina that belong to youth and early middle age. There is no question that the physiological changes that usually come during the forties modify the work capacities of men and women considerably. But the older worker, in turn, frequently offers more highly developed skills and more mature judgment. He tends to be more settled in his work and social habits. His life usually is conducted on a more even keel, and less subject to the emotional upsets inherent in the raising of families.

What makes the older worker less desirable than the worker in his twenties and thirties? Granted that some tasks require more strength or speed than the older worker has, how does his work performance compare with that of younger workers?

Unfortunately no data are available for the comparison of output by age groups. Such data would be difficult to obtain because comparison would have to be based on appreciably large numbers of workers in the same or similar jobs—a situation that would be hard to find. In small groups, such comparisons would be influenced by great differences in individual work capacities.

[1] Of the Bureau's Regional Office in San Francisco.

How does the older worker compare in other respects? Is he less steady in his work attendance? Is he more of an injury risk? Does he lose more time because of illness or injury?

Answers to these questions are available from a detailed study of the work records of about 17,800 workers in a variety of manufacturing industries. These workers composed the control group against which the performance of workers with serious physical impairments was measured.[2] They were employed in 109 manufacturing plants at a great variety of occupations—nearly all of them productive. The plant records from which the data were obtained covered at least 6 months in every instance.

The only disadvantage of older workers, the data indicate, is that their disabilities last longer once they are injured. But they are, on the whole, less likely to be absent as frequently and perhaps less likely to be injured than younger workers.

The distribution by age group and by sex of the workers included in this study follows:

	Number of workers		
	Total	*Men*	*Women*
All age groups	17,817	16,508	1,309
Under 20 years	128	78	50
20–24 years	654	464	190
25–29 years	1,394	1,162	232
30–34 years	2,135	1,966	169
35–39 years	2,166	1,961	205
40–44 years	2,148	1,980	168
45–49 years	2,251	2,118	133
50–54 years	2,641	2,545	96
55–59 years	2,291	2,225	66
60–64 years	1,378	1,378	-------
65–69 years	505	505	-------
70–74 years	126	126	-------

Absenteeism

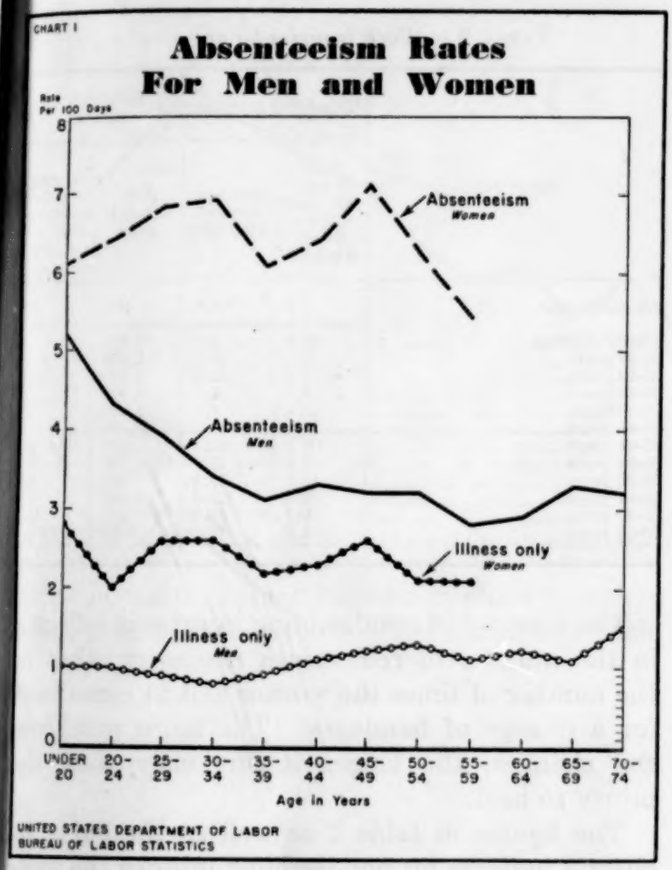
The absenteeism rate, i. e., the number of days lost per 100 workdays during which the workers were scheduled to work, decreased consistently as age increased (see table 1). Workers under 20 years of age had the highest absenteeism rate—5.8. At the point where the 45-year age group is reached, the absenteeism rate was down to 3.4. In every age group above 50 years, workers lost fewer scheduled workdays than those in any age group below 50. The higher age groups, i. e., those from 45 years up, were steadier in attend-

[2] For a summary of that study, see Work Performance of Physically Impaired Workers, Monthly Labor Review, January 1948.

nce. Furthermore, there was practically no ariation between the age groups from 30 through 4 years.

That women, as a rule, have higher absenteeism ates than men is another point (well known to ersonnel directors) brought out by table 1. For he groups as a whole, the rate of 6.5 for women as more than double that of 3.2 for men.

It is notable that absenteeism rates for women were fairly stable throughout the various age groups. The men experienced steady decreases



from a rate of 5.5 for ages under 20 years to a rate of 3.6 for ages up to 34, whereas the rates for women increased from 6.1 to 6.9. However, the number of women included in each of the various age groups was rather small. Consequently the similarity of the rates is more revealing than the differences.

As women workers aged 60 years and over were rarely encountered in the survey, no data are shown for the age groups above 59 years.

About one-third of the time lost by men was ascribed to illness. The proportion of illness absenteeism for women was substantially the same, although the actual time lost for this reason was more than twice that lost by men.

TABLE 1.—*Absenteeism rates by age groups and sex in manufacturing industries*

Age group	Absenteeism rates (per 100 workdays)					
	All reasons			Illness		
	All workers	Men	Women	All workers	Men	Women
All age groups	3.4	3.2	6.5	1.2	1.1	2.4
Under 20 years	5.5	5.2	6.1	1.6	1.0	2.8
20–24 years	4.9	4.3	6.4	1.3	1.0	2.0
25–29 years	4.3	3.9	6.8	1.1	.9	2.6
30–34 years	3.6	3.4	6.9	1.0	.8	2.6
35–39 years	3.4	3.1	6.1	1.0	.9	2.2
40–44 years	3.5	3.3	6.4	1.2	1.1	2.3
45–49 years	3.4	3.2	7.1	1.2	1.2	2.6
50–54 years	3.3	3.2	6.2	1.3	1.3	2.1
55–59 years	2.8	2.8	5.4	1.1	1.1	2.1
60–64 years	2.9	2.9	.....	1.2	1.2	.....
65–69 years	3.3	3.3	.....	1.1	1.1	.....
70–74 years	3.2	3.2	.....	1.5	1.5	.....

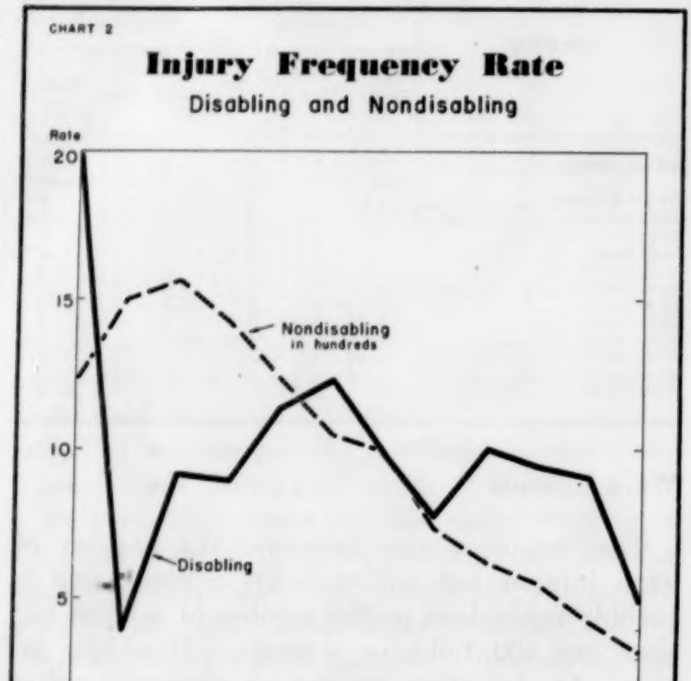
Work Injuries

The frequency rate measures the number of work injuries per million hours worked, and is roughly equivalent to the number of injuries per year per 500 full-time workers. Disabling injuries, by definition, require an employee either to sustain a permanent impairment or to be disabled for work for at least one full shift. Nondisabling injuries usually require only first aid.

The frequency rate of 9.7 for disabling injuries for the entire group (table 2) indicates an injury experience more favorable than generally found in a composite group of manufacturing industries. For the age group below 20 years, however, the rate of 19.8 is based on the experience of too small a group of workers to be significant. Although it is not unlikely that the rate for this teen-age group ordinarily is higher than that of older workers, the rate of 19.8 appears to be too high compared with the other age groups.

As is clearly evident from chart 2, the frequency rate of disabling injuries for workers between the ages of 55 to 69 years was about the same as that for the 45 to 49 year group. This rate, in turn, was only fractionally higher than that for the 25 to 34 year group. The highest accident rates occurred in the groups from 35 to 44 years. On the whole, the disabling work injury experiences of workers aged 45 or more compared favorably with those of the lower age groups.

An even more striking tendency toward fewer work injuries is shown by the curve for nondisabling injuries. With the highest point in the 25 to 29 year group, the frequency rate of these injuries decreased steadily, reaching its lowest point in the 70 to 74 year group. Even if workers



aged 60 and over are eliminated from comparison because they may not be occupied in the more hazardous occupations, the workers between 45 and 59 years of age clearly experienced fewer injuries per million hours worked than those in the age groups 20 through 44.

The relative severity of both disabling and nondisabling injuries [3] are shown in table 2 and chart 3. Older workers, once injured, tend to be disabled longer, as chart 3 clearly shows. Their recuperative powers are lower. The difference is particularly marked in comparison with the two age groups between 30 and 39 years. Whereas, on the average, an injured worker between 45 and 59 years of age lost from 16 to 19 days per disability, injured workers between 30 and 39 years averaged between 6½ and 9 days per healing period.

It is noteworthy, however, that the largest average disabilities were recorded for the 20 to 24 year age group. On the other hand, the low average duration of 4 days for the group below 20 years indicates, together with the high frequency rate already mentioned, that the injuries within this group—although more frequent—were relatively slight.

TABLE 2.—*Work injuries by age groups*

Age group	Disabling injuries		Nondisabling injuries	
	Frequency rate (per million hours worked)	Average days of disability	Frequency rate	Average number of redressings per injury
All age groups	9.7	14.7	980	0.9
Under 20 years	19.8	4.0	1,230	.8
20–24 years	4.0	23.4	1,500	.7
25–29 years	9.2	13.3	1,560	.8
30–34 years	9.0	6.5	1,420	.7
35–39 years	11.4	9.0	1,240	.8
40–44 years	12.4	16.5	1,050	.9
45–49 years	9.8	19.4	990	1.1
50–54 years	7.8	16.2	740	1.1
55–59 years	10.1	19.1	630	1.2
60–64 years	9.5	16.2	560	1.4
65–69 years	9.1	12.4	430	1.3
70–74 years	4.9	15.0	320	1.1

The severity of nondisabling injuries is reflected in the number of redressings necessary, that is, the number of times the worker had to come back for a change of bandages. The more numerous the changes, the longer it obviously took the injury to heal.

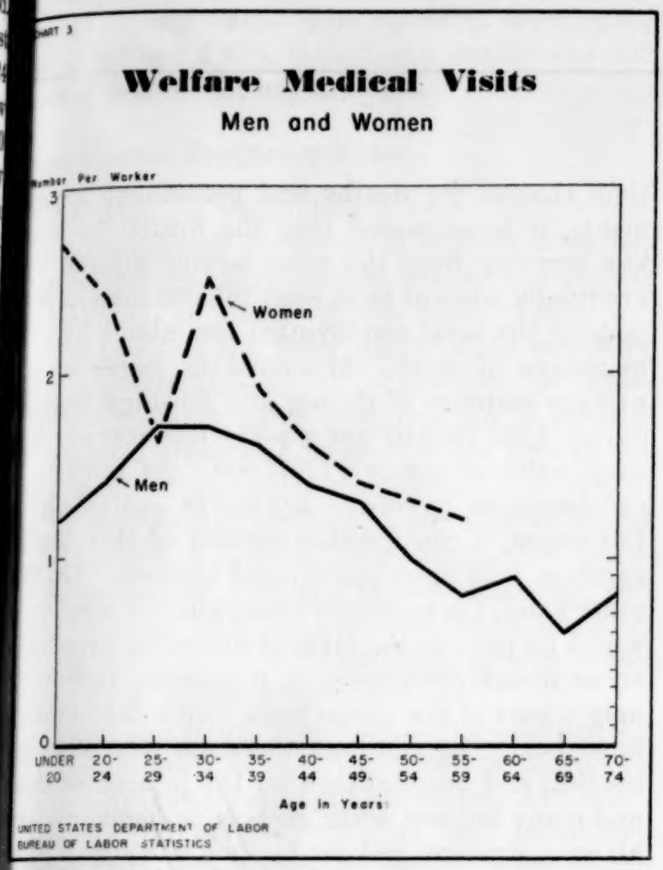
The figures in table 2 as well as the curve on chart 3 indicate for nondisabling injuries the same trend as observed for disabling injuries: older workers required longer healing periods. Redressings were most numerous for the 60- to 69-year-old workers.

Welfare Medical Visits

Modern plants provide not only first aid for work injuries, but also relief for minor aches and pains not directly related to work accidents: headaches, colds, digestive discomforts, and menstrual pains. Do the records of these clinics indicate

[3] Another point which is of interest to safety engineers, although not pertinent to this discussion, is that the ratio of nondisabling injuries to disabling injuries is 100 to 1.

at older workers have a greater tendency to ffer from these discomforts?



The opposite is clearly shown in chart 3, which is based on data in table 3. The number of such "welfare" visits was highest for the age groups between under 20 and 34 years, averaging about 1.8 per person. Thereafter, the frequency of these visits declined fairly steadily, reaching its lowest levels for workers aged 55 and over.

As might be expected, the rates for women workers exceeded those for men, both in the group as a whole as well as in every age group. Particularly was this so for the ages between under 20 and 34. But for men and women alike, the number of minor discomforts for which they sought relief in plant clinics were more frequent among workers below 45 years of age than for workers above that bench mark.

TABLE 3.—*Welfare medical visits to plant clinics, by age and sex of worker*

Age group	Number of medical welfare visits per worker		
	All workers	Men	Women
All age groups	1.3	1.2	1.8
Under 20 years	1.8	1.2	2.7
20–24 years	1.7	1.4	2.4
25–29 years	1.7	1.7	1.6
30–34 years	1.8	1.7	2.5
35–39 years	1.6	1.6	1.9
40–44 years	1.4	1.4	1.6
45–49 years	1.3	1.3	1.4
50–54 years	1.0	1.0	1.3
55–59 years	.8	.8	1.2
60–64 years	.9	.9	----
65–69 years	.6	.6	----
70–74 years	.8	.8	----

Summaries of Special Reports

Textile Dyeing and Finishing: Work Injuries in 1945 [1]

IN EACH OF THE 12 YEARS for which the Bureau of Labor Statistics has compiled injury rates for textile dyeing and finishing, this industry has had one of the least-favorable accident records among the industries comprising the textile-manufacturing group. In 1936, the injury-frequency rate for dyeing and finishing was 13.9, while the rate for all textile manufacturing was only 8.8.[2] The all-textile rate showed little change during the years 1937–40, but the dyeing and finishing rate rose to 15.5.

During the war the dyeing and finishing rate rose sharply, reaching a peak of 24.8 in 1942. By 1945, the year on which this study was based, it had declined to 20.6, but it was still substantially higher than the all-textile rate of 15.6.[3]

The 1945 injury-frequency rate for dyeing and finishing represented about 1 disabling injury for every 22 full-time workers in the industry. It is estimated that approximately 3,150 dyeing and finishing workers were disabled by injuries experienced on the job during 1945. About 15 of these injuries resulted in death and 135 in permanent physical impairment; the remainder were temporary disabilities, each of which involved the loss of at least a full day of work, but left no permanent ill effects.

Without allowance for the continuing loss in production and earning power arising from the deaths and permanent impairments, it is estimated that actual time lost by the injured dyeing and finishing workers amounted to at least 72,000 man-days during 1945. On the basis of standard time charges for deaths and permanent impairments, it is estimated that the future economic loss accruing from the more serious injuries will eventually amount to at least 265,000 man-days—making the total employment loss about 337,000 man-days of work. Measured in terms of the average earnings of dyeing and finishing workers during 1945 ($36.02 per week),[4] this represents a wage value of nearly $2,500,000. As workmen's compensation payments are never equivalent to full wages, a considerable portion of this loss in earnings falls upon the injured workers. On the other hand, the employer's share in this wage loss, which he pays in the form of insurance premiums or as direct compensation payments, represents only a part of the actual costs which the industry must bear. In addition, there are payments for medical and hospital care for the injured workers and many indirect costs, such as damaged materials or equipment, lost production, and supervisory time spent caring for the injured or reorganizing operations after the accident. These indirect costs are seldom a matter of record, but this does not lessen their reality. Studies by H. W. Heinrich [5] have indicated that for manufacturing generally the indirect costs of injury-producing accidents average about four times the direct cost of compensation payments plus hospital and medical payments. On the assumption that this ratio is approximately correct for the dyeing and finishing industry, it may be estimated conservatively that the indirect costs associated with injuries in the industry during 1945 amounted to at least 6 million dollars, perhaps as high as 8 million, and that the total cost probably ranged between 8 and 10 million dollars.

The foregoing industry figures for 1945 were based upon reports from 446 plants engaged in

[1] Prepared by Frank S. McElroy and George R. McCormack of the Bureau's Industrial Hazards Branch. A more complete report will appear in a forthcoming bulletin.

[2] The injury-frequency rate is the average number of disabling injuries for each million employee-hours worked.

[3] The 1946 injury-frequency rate for dyeing and finishing was 21.7. Preliminary reports indicate a somewhat lower rate for 1947.

[4] Bureau of Labor Statistics Hours and Earnings press release, April 25, 1946.

[5] Industrial Accident Prevention, by H. W. Heinrich. New York, McGraw-Hill Book Co., 1941.

eing and finishing yarn, thread, or piece goods. hese plants reported a total employment of over ,000, with more than 139 million employee-hours orked during 1945. The disabling injuries re- orted totaled 2,876, including 8 deaths and 129 ses of permanent impairments.

Departmental Frequency Rates

The extent to which details were available con- erning the injury experience of workers in partic- lar operations varied greatly among the report- g plants. In many of the small plants and lso in some of the large plants there was very ittle departmentalization. Workers in these lants commonly move from one job to another s the need arises and no records are kept of the ime spent on particular operations. The major- ty of the plants, however, were able to report heir experience in three broad categories: piece- goods processing, yarn and thread processing, and plant service and maintenance operations. A ubstantial number also provided greater detail within these major categories.

One of the more important facts disclosed by his break-down is that the industry frequency ate is considerably diluted by including the experi- ence of administrative, clerical, and laboratory workers who are exposed to relatively few of the hazards peculiar to the industry. The extent of their influence upon the over-all averages is partially indicated by the fact that nearly 10 per- cent of the total employment reported was in the clerical and administrative category, and that the average injury-frequency rate for this group was only 2.6.

Among the three major categories of operations, the processing of piece goods had the highest injury rate—23.6. The service and maintenance group of departments, which includes the admin- istrative, clerical, and laboratory workers, had an average rate of 18.5, and the yarn and thread processing departments had an average of 15.2.

The most pertinent detail for accident-preven- tion purposes, however, lies in a comparison of the injury rates for the various specific operating de- partments. The highest departmental frequency rates were for the maintenance and repair depart- ment (34.5), the piece-goods dye room (34.1), the print-color shop (29.1), the mechanical-print shop (28.5), the piece-goods receiving or gray room (26.5), the yarn and thread dye room (26.3), and the watchmen's department (25.2). All of the departments handling piece goods, except the screen-print shop and the make-up department, had injury rates above 20. In the yarn and thread group, however, only the dye-room rate was above 13. In the service and maintenance group, the shipping-department rate was 23.4 and the power- department rate was 19.0.

Accident Causes

The more detailed information necessary for determination of the outstanding causes of acci- dents in the industry was obtained from 174 of the cooperating plants by Bureau representatives who transcribed from their records a complete account of each accident experienced by their employees during 1945. In order to broaden the analysis and to permit a greater detail, this part of the survey was extended to include not only disabling injuries, but also all injuries requiring treatment by physicians. These data, covering over 7,600 injury cases, were then analyzed according to the American Recommended Practice for Compiling Industrial Accident Causes, approved by the American Standards Association, August 1, 1941.

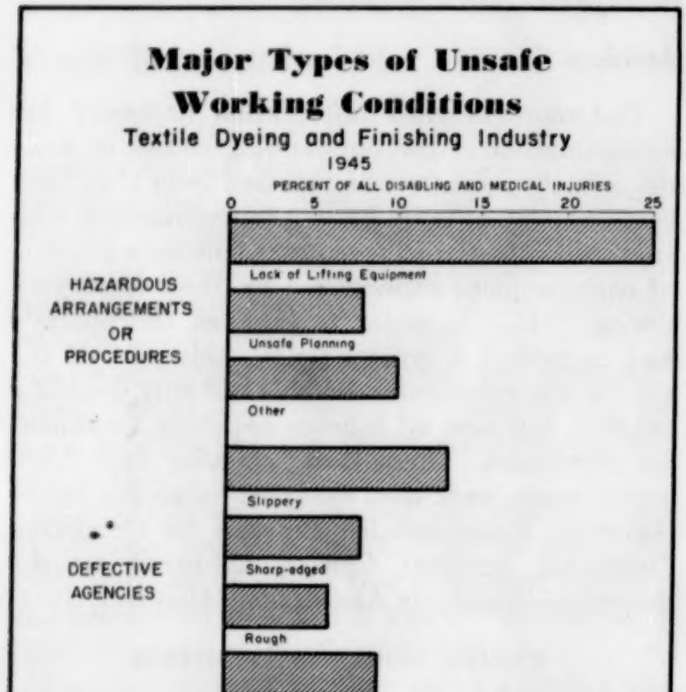
UNSAFE WORKING CONDITIONS

Practically all of the unsafe conditions revealed by the analysis fell into three general groups: Hazardous arrangements or procedures (responsible for nearly 43 percent of the accidents), defective agencies (responsible for 36 percent), and im- properly guarded agencies (for 19 percent).

Hazardous Arrangements or Procedures. Lack of proper lifting equipment or lack of sufficient help in lifting heavy objects was most common among the particular unsafe conditions included in this general group. Rolls of cloth and containers were involved in the majority of these lifting accidents.

The practice of moving rolls of cloth by hand and of hand-lifting the rolls into position on ma- chines is quite common in the dyeing and finishing industry, even though some of the rolls may weigh as much as 500 pounds. In placing one of these heavy rolls on a machine the workman gen- erally moves the roll as near to the machine as possible on a hand truck from which he lifts first one side of the roll and then the other.

Although the injury possibilities involved in handling heavy rolls of cloth are obvious, relatively few of the plants have taken any steps to eliminate the hazard. In one plant, however, the problem was solved by plaiting all cloth into box-type hand trucks at the delivery end of each machine, which practically eliminated rolls of cloth



in the processing operations. Another plant used specially designed hand trucks in place of the loading and unloading jacks at the entry and delivery ends of the machines. The cloth is threaded directly from one of these trucks through the machine and into a second truck at the delivery end, thereby eliminating the lifting at both ends of the machine. Another plant used powered lift trucks to place the cloth in the machines, and several plants had installed block and tackle equipment to do the lifting. One of the plants had also installed overhead rails on which the block and tackle with its suspended load could be moved from one operation to another.

To reduce the number of strains experienced by workers in the warehouse, one plant constructed special racks for storing rolls of cloth. By having these racks built to the same height as the beds of the hand trucks used in transporting the cloth and by limiting storage on the racks to one roll high the cloth could be rolled on and off the hand trucks without lifting.

In the gray rooms, make-up, shipping, and warehouse departments much of the lifting problem centered in the handling of bales and crates. In the color shops, kettles and drums were the agencies most frequently involved in lifting accidents.

Departmentally, the lack of proper lifting equipment or the lack of sufficient help in lifting operations constituted an outstanding hazard in each of the piece-goods departments and in the shipping, yard, and warehouse departments. Among the piece-goods departments, at least a third of all the accidents ascribed to unsafe working conditions in the dye-color shops, the finishing departments, and the mechanical-print shops were chargeable to this particular hazard. In the finishing department this hazard was most commonly encountered in calendering and tentering operations.

Unsafe planning or lay-out, either of traffic or process operations, was second in importance among the groups of hazards classified as hazardous arrangements or procedures. Hand tools, chemicals, machines, and containers were the agencies most frequently involved in the accidents arising from hazards of this general nature.

Extensive use of sharp knives to cut cloth constitutes a prominent hazard in the industry. The general failure to provide proper sheaths or convenient racks to hold the knives when not in actual use was responsible for a substantial volume of the reported injuries. Lacking these proper facilities the workers commonly lay the knives on their work tables or on other nearby surfaces where they frequently strike against them as they move about in their work. In a few plants where knives were not furnished and the workers were expected to tear the cloth whenever necessary, they frequently used their own pocket knives and experienced injuries when the blades snapped shut on their fingers.

Although the toxic properties of the dyes and chemicals used in the industry are well known, the

erating procedures present many possibilities the workers to come into direct contact with se materials. Skin infections, therefore, are an tstanding problem in many departments of the dustry. As individual susceptibility varies atly, some plants attempt to meet the problem transferring the more susceptible workers to her work. In some instances, all workers exposed contact with dyes or chemicals are given periodic edical examinations in an effort to catch dermais in its early stages. Much remains to be done, wever, in a more direct approach of developing s toxic materials or of re-engineering the procses to eliminate exposure to the materials now in e. Success in this effort, it is believed, would iminate about 25 percent of the injuries experinced by workers in the piece-goods dye-color ops and print-color shops; about 15 percent of hose experienced by workers in both the piecegod and yarn and thread dye rooms; and from 10 12 percent of the injuries incurred in mechanal and screen-print shops.

Hazardous procedures in the use of machines ere found to be many and varied. The operaion most commonly resulting in injury, however, as that of threading heated drying cans, which roduced a great many burns. Less common, ut producing more serious injuries, was the ractice of permitting workers to enter heated or ume-filled chambers of machines to make adustments.

Transporting hot starch, dyes, and other chemials in open buckets from which the materials an splash, or in glass containers which may break f dropped, is common throughout the industry nd is responsible for many injuries. In finishing epartments it is customary to mix the starch, sed in mangles, in "starch rooms." The hot tarch is then carried in buckets to the mangle nd poured into the machine by hand. The reports indicated that the starch frequently splashes on the worker performing this operation and often causes very painful burns. One plant had eliminated this hazard by placing the starch-mixing operation on the floor above the finishing room and running a pipe directly to the mangle from the mixing tank. This simple utilization of the force of gravity not only eliminated the hazards involved in transporting the starch but also reduced the amount of labor required to place the starch where it was needed.

In relatively few of the plants was there any indication of a serious traffic problem. One plant reported that it had had a number of accidents involving powered trucks at blind corners, but this hazard had been overcome by installing electric eyes, which operated warning signals, in passageways leading to the danger points.

Hand plaiting in kier boilers is particularly hazardous because the heat may cause the worker to faint. If this happens, he may be suffocated by the cloth piling on him. However, the widespread use of automatic plaiters apparently has practically eliminated accidents of this type. None were reported in 1945 by the plants included in this analysis.

Poor housekeeping was a common source of accidents in many plants. Cluttered working surfaces and passageways caused many workers to trip and fall, and unsafely piled or stored materials frequently fell on workers or presented bumping hazards. Another hazard often resulting in injuries to machine operators and maintenance men was the general lack of a safe means of reaching the elevated parts of machines. The provision of safe ladders or platforms for work at levels beyond easy reach from the floor would have prevented most of these injuries.

Defective Agencies. Slippery working surfaces were an outstanding source of accidents throughout the industry, particularly in boil-off or bleaching departments, dye-color shops, dye rooms, mechanical-print shops, ageing departments, drying departments, and gray rooms. In most instances this hazard was due to water, printing colors, or dyes which had been spilled or splashed in the working areas. In general, there was little evidence of any effort to reduce the hazard of slippery floors, although every one in the industry seemed to be aware of the dangers involved. In a few instances, however, rough-grained concrete floors had been installed, and in some plants the workers were furnished with wooden clogs for use where floors were generally wet.

Sharp edged agencies, such as metal tie bands on bales and crates, clips in the selvedge of cloth passing through machines, and slivers projecting from shells which were rotating on machines, were particularly common sources of severe cuts and abrasions. Projecting nails or splinters on working surfaces, splintered handles and rough frames on

hand trucks, broken floors, and rough or splintered benches, tables, and chairs were also responsible for many injuries of this nature. The prevalence of this latter group of unsafe conditions was a strong indication of the need for more adequate inspection and repair of the equipment, tools, and materials used in the industry.

Improperly Guarded Agencies. The proportion of accidents ascribed to inadequate guarding was unusually high in the dyeing and finishing industry—19 percent as compared with less than 10 percent in most of the other industries surveyed by the Bureau of Labor Statistics in recent years. The importance of this group of accidents, however, is even greater than is indicated by its volume. In general, accidents arising from inadequate guarding tend to produce serious injuries. Over 13 percent of the injuries resulting from this group of accidents, in this survey, were cases of death or permanent physical impairment.

Machines, boilers and other pressure vessels, containers, and working surfaces were most frequently involved in accidents resulting from inadequate guarding. In the machine group, unguarded gears, belts, and pulleys were the most common sources of injury. The lack of guards on squeeze rolls accounted for a number of injuries and the lack of splash guards on washing, soaping, and dyeing machines was primarily responsible for many cases of dermatosis. One of the most serious hazards in make-up departments was in the operation of hookers, or folding machines. Few attempts have been made to guard these machines and many management officials maintain that no effective guard can be applied. In two plants visited, however, this problem had been given careful study and guards had been designed. One of these, a gate guard, had not yet been installed, so its effectiveness could not be checked. The other, which was operating satisfactorily, consisted of an electric eye, across the front of the machine, which activated a brake on the motor when the operator's hands entered the danger zone.

Most of the accidents ascribed to unguarded boilers or pressure vessels were cases in which workers touched hot steam pipes or other heated surfaces. The unguarded containers involved in accidents were chiefly uncovered buckets used in carrying acids or other harmful chemicals. Unguarded working surfaces were generally elevat platforms or walkways not provided with adequa railings. There were, however, a number accidents traceable to unguarded manholes a unguarded cloth bins.

Unsafe Acts

For the purpose of accident analysis, an unsa act is defined as "a violation of a commonly a cepted safe procedure." [6] Literally, this defi tion means that no personal action shall be desi nated as unsafe unless there was a reasonable a less-hazardous alternative method or procedur There is, however, no implication that the alte native safe procedure must have been known t the person who acted in an unsafe manner, n that his unsafe act was the result of a considere choice between the two possible procedures. I many of the accidents studied in this survey it wa apparent that the individual knew the safe pr cedure, but consciously decided not to follow i In other cases, circumstances indicated that th person acted unsafely simply because he did no know the alternative safe method. The first ste toward the elimination of unsafe acts, therefore, i to make sure that all workers are thoroughly in structed in the safe methods of performing thei duties and that they are familiar with the hazard connected with deviations from those methods The second essential step is to exercise strict supervision to see that safe procedures are followed.

Most of the accidents attributable to unsafe acts fell into two general groups: Nearly 40 per cent resulted from the use of unsafe equipment o the unsafe use of equipment, and 38 percent from workers assuming an unsafe position or posture.

Equipment—Unsafe, or Unsafely Used. Within this group the outstanding type of unsafe act was that of taking an incorrect hold or not maintaining a good grip on objects being handled. For example, in many cases, shells, center bars, boxes, rolls of cloth, and similar objects slipped from the worker's hands because he attempted to handle the material with wet hands, grasped the material at a sharp or rough spot which caused him to release his grip, or did not hold it firmly enough to control its movements. Cuts on the hands and pinched

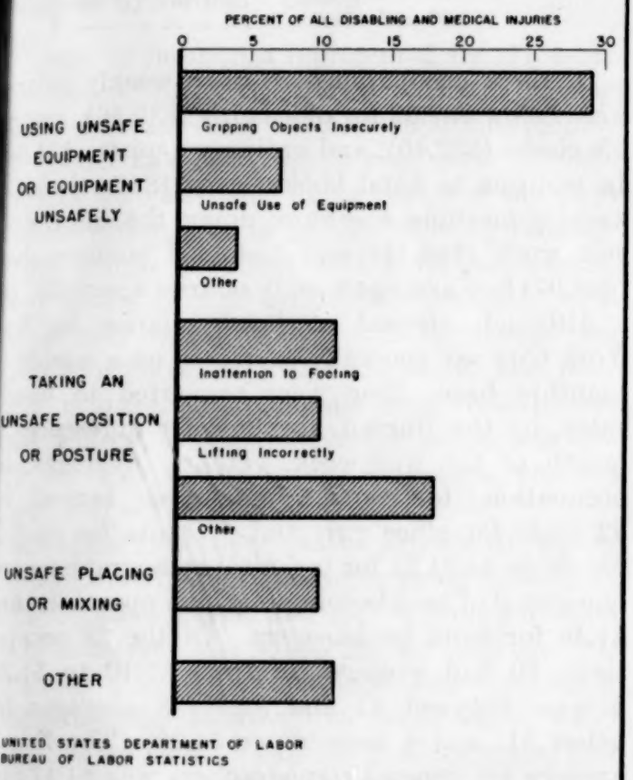
[6] American Recommended Practice for Compiling Industrial Accident Causes, approved by the American Standards Association, August 1, 1941.

crushed fingers and feet were the most common uries resulting from these practices. Similarly, king an incorrect hold on objects which were ng piled or placed in machines and pushing nd trucks other than by the handles led to many shed fingers and hands.

Major Types of Unsafe Acts

Textile Dyeing and Finishing Industry

1945



Use of hand tools or other equipment for purposes other than those for which they were designed was a common source of injury. Additional examples of the misuse of equipment included running with hand trucks and the lack of care in handling vehicles at blind corners. Basically, all of these unsafe acts indicate inadequate supervision.

Unsafe Position or Posture. Inattention to footing and unsafe lifting were the outstanding unsafe acts in this general category. In the inattention-to-footing group, there were many cases of tripping over objects lying on the floor and of falls on slippery surfaces. Lifting with a bent back, while in a cramped or awkward position, or while standing on irregular or insecure surfaces caused most of the lifting accidents. Other unsafe practices in this general group included such actions as working, walking, or standing in the path of moving vehicles; unnecessarily working or passing under suspended objects; entering chambers of machines or other enclosures which were unsafe because of high temperatures or fumes; and riding in an unsafe position on vehicles.

Unsafe working conditions, particularly those created by poor housekeeping and the lack of proper lifting equipment, were also involved in many of the accidents associated with assuming an unsafe position. Correction of the unsafe working condition, to eliminate the possibility of any worker exposing himself to the hazard, would be the most effective safety measure. Nevertheless, it is apparent that workers should be more thoroughly trained to recognize and cope with hazards which they may encounter on the job.

Other Unsafe Acts. In the general category of unsafe placing or mixing of materials, a substantial number of accidents involved collapse of insecurely built piles of materials. Splashing of dyes or chemicals during mixing operations was also responsible for a considerable number of injuries. In many instances these accidents resulted from the introduction of steam into the mixtures under too great a pressure.

Other types of unsafe acts, which produced accidents in sufficient volume to indicate that they are fairly common in dyeing and finishing operations, included failure to use proper safety equipment where required; wearing of unsafe clothing, such as loose sleeves or neckties while working on moving machinery; running in the workplace or operating equipment at unsafe speeds; and operating equipment without authority.

Salaries of Office Workers, New York City, 1948 [1]

SALARY LEVELS of office clerical workers in New York City are of special significance because of the extremely large number of these workers employed there. Not only is the city the center of the finance, insurance, trade, and other "white-collar" industries, but it is also the national headquarters of hundreds of establishments with subsidiaries throughout the United States and the world. Salary determinations for office workers throughout the country are influenced, in part, by the levels existing in this home-office area.

Average weekly salaries in January-February 1948 for men in a representative list of office clerical occupations ranged from $30.52 for office boys to $64.43 for hand bookkeepers and, for women, from $30.56 for office girls to $55.11 for hand bookkeepers.[2]

Women outnumbered men in all except 2 of the 23 occupations studied; in fact, sufficient numbers of men to warrant presentation of the data were found in only 18 of the occupations. Among women employees, general stenographers comprised the largest and most representative group studied. Workers in this occupation averaged $43.37 for an average workweek of 37 hours. About 57 percent of these workers had weekly salaries ranging from $37.50 to $47.50. Clerk-typists' salaries averaged $37.52 a week as general clerks, $39.72.

The 23 occupational weekly salary averages for the New York women office workers, in January-February 1948, were distributed as follows:

Weekly salaries of—	Number of occupations
$30.00 to $32.49	2
$32.50 to $34.99	1
$35.00 to $37.49	0
$37.50 to $39.99	3
$40.00 to $42.49	9
$42.50 to $44.99	4
$45.00 to $47.49	1
$47.50 to $49.99	2
$50.00 and over	1

In three occupations, average weekly salaries were below $37.50 for office girls ($30.56), routine file clerks ($32.40), and ordinary typists ($34.96). In addition to hand bookkeepers ($55.11), bookkeeping-machine operators doing the more difficult work ($48.14) and technical stenographers ($48.97) had average weekly salaries above $47.50.

Although clerical workers' salaries in New York City are generally expressed on a weekly or monthly basis, they were converted to hourly rates, by the Bureau, to allow for differences in length of the workweek. Hourly averages, by occupation, for women employees ranged from 82 cents for office girls and 87 cents for routine file clerks to $1.31 for technical stenographers and one group of bookkeeping-machine operators, and $1.46 for hand bookkeepers. Of the 23 occupations, 10 had averages of from $1.10 to $1.20, 6 were between $1 and $1.10; 3 averages fell below $1; and 4 were above $1.20. The hourly average for general stenographers was $1.17; for clerk-typists, $1.01; and for general clerks, $1.09.

Men's weekly salaries averaged below $37.50 in only 2 of the 18 occupations for which such data for men could be presented. These were routine file clerks ($32.71) and office boys ($30.52). The highest-paid job was that of hand bookkeeper ($64.43), followed by some bookkeeping-machine operators ($57.79) and by pay-roll clerks ($55.44). Of the remaining 13 jobs, average weekly salaries for 9 were between $45 and $55 and for the other 4 between $37.50 and $45.

On an hourly basis, routine file clerks (86 cents) and office boys (82 cents) had the only averages below $1.00. The two highest-paid positions were those of hand bookkeepers ($1.71) and certain

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[1] The field work for this study and the preparation of the report were under the immediate direction of Leonard Linsenmayer, the Bureau's Regional Wage Analyst in New York. The Department of Placement and Unemployment Insurance of the New York State Department of Labor was especially interested in the current study and cooperated in planning it. The Bureau gratefully acknowledges the assistance of Dr. Meredith Givens, Director of Research and Statistics, and members of his staff.

A previous article on salaries and other terms of employment of office clerical workers, in Atlanta, appeared in the May 1948 Monthly Labor Review (p. 512). Ten major metropolitan areas were surveyed by the Bureau of Labor Statistics; the 8 other areas are Boston, Buffalo, Chicago, Milwaukee, Dallas, Denver, Seattle, and San Francisco. Detailed bulletins will be available for each city and may be obtained upon request.

[2] The study of salaries and supplementary benefits of office clerical workers in New York was confined, in general, to types of establishments which employ substantial numbers of office workers. Seven major groups were selected: Central and administrative offices of manufacturing establishments; offices of local manufacturing plants; wholesale trade; retail trade; finance, insurance and real estate; transportation, communication, and other public utilities (except railroads); and selected service industries. A total of 884 establishments employing slightly more than 375,000 workers of all types were included in the survey. Of these, 187 establishments had more than 500 workers; 185 were in the 251 to 500 group; and 315 and 197 were in the 101 to 250 and 51 to 100 groups, respectively. No establishment in New York with fewer than 51 workers was included in the survey. The 884 firms were visited by the Bureau's field representatives who obtained data for 23 occupations from establishment pay-roll records, with classifications based on uniform job descriptions. All salary data exclude overtime premiums and pertain to full-time workers only.

bookkeeping-machine operators ($1.53). The maining jobs were well dispersed between $1 d $1.50, with most of the averages being sub-ntially over $1.10.

Average salaries for men were substantially gher than those for women in almost all occupa-ons employing both men and women. The dif-rences are due, in part, to variations in salary d composition of the work force among estab-hments, and, in part, to accumulated advances r the men on account of greater length of service ithin establishments.

Variations by Industry Group

Groups of industries represented by the estab-hments included in the survey varied as to salary vels. An analysis of the 20 occupations employ-g women and the 5 employing men, in which verages were available for at least 6 of the major dustry groups, indicates the following ranking[3] f the groups in terms of the highest average alary levels of the various occupations: First, entral and administrative offices; second and hird, transportation, communication, and other ublic utilities, and wholesale trade; fourth, local lant offices of manufacturing establishments; fth, services; sixth, finance, insurance, and real state; and seventh, retail trade.

In 9 of the 25 occupational categories, the highest arnings were found in manufacturing central and dministrative offices, and in 7 in transportation, ommunication, and other public utilities. In holesale trade, 3 occupations had the highest eekly average salaries. In retail trade, which n general apparently had lower salary scales than he other industry groups, one occupation had the ighest average weekly salary. Thus, the relation-hips presented in the above ranking appear to e very general and not uniform throughout the ndividual occupations studied.

The extent of difference between lowest and ighest average weekly salaries, by occupation, among the major industry groups varied widely. In the occupation numerically most important, women general stenographers, the averages fell within a range of $5.13—from $41.53 in retail trade to $46.66 in central and administrative offices of manufacturing establishments. Similarly, women clerk-typists were found in a narrow range—from $34.77 in retail trade to $39.84 in services.

The least difference found within any occupation of men workers was in the averages for office boys, with the lowest average ($28.74) in the service group and the highest ($31.89) in central and administrative manufacturing offices. The other 5 group averages fell within that $3.15 differential. The women's occupation with the smallest difference ($4.05) was that of office girls, the averages ranging from $28.74 in services to $32.79 in retail trade.

The greatest difference for women was in the class A bookkeeping-machine operator classification—a $16.27 range, from $41.43 in retail trade to $57.70 in transportation, communication, and other public utilities. In men's averages, the greatest difference was $12.27 for pay-roll clerks, ranging from $50.15 in retail trade to $62.42 in finance, insurance, and real estate.

In 15 (or three-fifths) of the 25 jobs used in this comparison, the extent of the range between the lowest and highest industry-group averages was between $5 and $10, and in 3 additional occupations the differences were less than $5. Considering the numerous and complex factors that influence wage and salary determinations in the New York area—factors such as geographical location (from the standpoints of both accessibility and relative desirability), working conditions, scheduled workweek, and numerous others—the above analysis reflects a surprisingly limited range in occupational salary averages by industry group.

Working Conditions

In the employment of office clerical workers, certain working conditions and supplementary benefits are relatively significant, as they are taken into consideration in the employee's evaluation of his economic status and help to determine the degree of general satisfaction with which he views his position. Many informal practices exist which cannot be measured or evaluated, but they are considered as recognition of the "human" element. In addition, certain practices and benefits have been formalized. Information on such arrange-

[3] This ranking was based on the number of occupations ranking first, second, third, etc., in each industry group, weighted by assigned factors—7 for each first place; 6 for each second, etc. As a result of this computation, the rank indicated was fairly conclusive, except for transportation, communication, and other public utilities, and wholesale trade. These two groups were virtually even, and, therefore, are designated as "second and third."

ments, obtained from the 884 firms in the New York clerical survey, is summarized in the following discussion on the basis of number of establishments affected.

In general, salary rates for specific functions were a matter of individual determination within New York City offices. Only 159, or about 18 percent, of the firms had formalized salary-rate structures. All except 10 of these had systems providing for rate ranges within specific occupations. In most of these establishments, however, the progressions within the rate ranges were not automatic. Typically, progression was based on merit reviews or periodic reviews of individual attainments. It is evident, therefore, that salary structures were based primarily on individual determinations, or that if formalized systems existed they were characterized by considerable flexibility.

Slightly more than 7 out of every 8 establishments employing men office workers operated on a

Average salaries [1] and average weekly scheduled hours of work for selected office occupations, New York, N. Y., in selected industry groups, January-February 1948

Selected occupations	All industries				Manufacturing				Wholesale trade		Retail trade		Finance, insurance, and real estate		Transportation, communication, and other public utilities		Services	
					Central and administrative		Local plant											
	Number of workers—	Average weekly salaries	Average weekly hours	Average hourly rates	Average weekly salaries	Average weekly hours	Average weekly salaries	Average weekly hours	Average weekly salaries	Average weekly hours	Average weekly salaries	Average weekly hours	Average weekly salaries	Average weekly hours	Average weekly salaries	Average weekly hours	Average weekly salaries	Average weekly hours
Men																		
Billers (billing machine)	392	$45.26	38.2	$1.19	(2)	(2)	$46.16	39.0	$44.93	38.5			$49.30	38.4	$39.43	36.8		
Bookkeepers, hand	1,958	64.43	37.6	1.71	$65.25	35.7	64.00	38.2	67.55	38.5	$54.38	39.4	62.86	37.1	67.47	37.8	$62.58	38.1
Bookkeeping-machine operators:																		
Class A	188	57.79	37.8	1.53	(2)	(2)	(2)	(2)	(2)	(2)			54.91	38.3	(2)	(2)	(2)	(2)
Class B	485	46.62	37.8	1.23			45.10	39.2	57.64	38.8			42.90	37.5	38.04	36.0	(2)	(2)
Calculating-machine operators:																		
Comptometer-type	86	44.00	38.2	1.15	(2)	(2)	44.02	39.3	47.58	37.6			42.37	38.1	(2)	(2)	(2)	(2)
Other than comptometer-type	92	41.47	37.4	1.11			(2)	(2)					40.72	36.7	(2)	(2)	(2)	(2)
Clerks:																		
Accounting	6,575	51.60	37.3	1.38	56.96	36.1	49.73	37.3	50.59	37.9	(2)	(2)	50.92	37.3	53.46	37.4	49.85	37.1
File, class A	217	46.16	37.2	1.24	(2)	(2)	40.18	37.8	49.60	38.4	(2)	(2)	45.03	36.1	(2)	(2)	(2)	(2)
File, class B	627	32.71	37.9	.86	36.62	36.1	38.79	38.1	33.99	37.1	(2)	(2)	29.54	36.8	(2)	(2)	32.81	39.0
General	4,942	47.81	36.9	1.30	53.37	35.7	44.95	37.3	49.55	39.2	(2)	(2)	45.73	36.0	52.40	38.0	42.77	36.8
Order	2,335	52.33	38.1	1.38	52.19	35.2	47.87	37.7	51.43	38.1	(2)	(2)	59.79	39.6	(2)	(2)		
Pay roll	1,073	55.44	37.6	1.48	61.66	35.8	53.44	37.9	50.36	38.2	50.15	40.0	62.42	36.9	53.93	37.0	58.34	38.0
Clerk-typists	615	39.34	37.7	1.04	(2)	(2)	38.73	37.3	37.73	38.3	(2)	(2)	36.13	37.0	40.96	38.0	46.29	38.1
Office boys	6,884	30.52	37.2	.82	34.89	35.6	30.08	37.2	31.62	37.2	30.09	39.9	30.44	37.4	30.84	36.7	28.74	38.6
Stenographers, general	386	50.05	38.7	1.29	(2)	(2)	50.17	37.9	52.82	37.4			44.24	38.4	(2)	(2)	48.62	38.1
Switchboard operators	98	51.58	38.6	1.34			53.64	40.0					(2)	(2)	(2)	(2)	(2)	(2)
Typists:																		
Class A	194	45.27	37.2	1.22	46.02	35.0	45.99	37.7	(2)	(2)			39.47	36.3	(2)	(2)	(2)	(2)
Class B	162	37.77	37.2	1.01	(2)	(2)	(2)	(2)	38.21	37.4			36.42	36.2	36.64	38.1	(2)	(2)
Women																		
Billers:																		
Billing-machine	2,777	40.82	37.5	1.09	41.97	36.1	39.98	37.6	41.79	37.8	38.30	40.0	40.37	37.0	42.18	38.7	35.25	37.0
Bookkeeping machine	512	44.12	37.4	1.18	46.91	36.1	47.00	37.4	43.88	37.5	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Bookkeepers, hand	1,623	55.11	37.8	1.46	55.56	35.9	56.62	38.0	58.21	38.5	47.36	39.2	48.19	36.7	54.61	38.6	56.10	37.9
Bookkeeping-machine operators:																		
Class A	1,204	48.14	36.8	1.31	51.11	35.5	50.51	37.4	47.23	37.6	41.43	39.3	45.22	36.3	57.70	36.7	(2)	(2)
Class B	5,797	40.67	36.8	1.11	40.47	35.7	43.95	37.9	44.52	37.9	39.47	39.8	38.74	36.2	42.24	36.0	41.85	36.7
Calculating-machine operators:																		
Comptometer-type	3,554	42.37	37.1	1.14	45.93	36.3	42.74	37.1	42.82	37.1	39.50	39.8	39.49	36.7	44.00	36.3	43.55	37.5
Other than comptometer-type	844	38.40	36.7	1.05	46.27	36.0	40.97	37.3	42.49	36.2	41.17	39.3	34.88	36.1	(2)	(2)	(2)	(2)
Clerks:																		
Accounting	7,846	41.75	37.2	1.12	44.40	36.2	43.05	37.1	43.72	37.5	35.45	40.0	38.51	36.6	45.57	36.5	43.07	38.4
File, class A	3,332	40.65	36.9	1.10	46.06	36.0	37.16	37.3	44.05	37.0	36.24	39.4	39.00	36.4	48.84	37.6	36.40	39.0
File, class B	8,187	32.40	37.1	.87	36.98	36.4	33.18	36.6	34.16	37.5	31.17	39.7	30.17	36.6	36.63	38.3	31.62	38.7
General	7,439	39.72	36.5	1.09	42.80	35.6	37.67	37.0	42.95	38.1	(2)	(2)	38.24	35.8	45.84	36.8	39.50	37.6
Order	2,492	40.97	38.1	1.08	44.13	35.1	41.91	38.9	43.79	37.5	35.37	39.8	44.56	36.4	(2)	(2)	41.75	37.5
Pay roll	2,840	46.57	37.6	1.24	50.57	35.4	44.97	38.0	46.15	37.7	42.96	39.6	50.67	36.8	47.90	37.4	46.36	38.1
Clerk-typists	9,983	37.52	37.2	1.01	38.69	35.7	37.96	37.3	38.89	37.6	34.77	39.8	36.07	36.8	36.86	37.3	39.84	37.7
Office girls	2,224	30.56	37.0	.82	31.82	36.2	31.63	36.8	32.12	37.7	32.79	39.9	29.04	37.0	31.51	36.3	28.74	37.6
Stenographers:																		
General	22,034	43.37	37.0	1.17	46.66	36.1	43.68	37.2	43.52	37.3	41.53	39.8	41.61	36.7	43.09	37.2	44.32	37.3
Technical	2,147	48.97	37.4	1.31	50.58	36.2	48.58	36.2	47.36	38.1	(2)	(2)	48.31	37.1	53.61	38.0	49.71	39.3
Switchboard operators	4,946	42.56	37.7	1.13	45.91	35.8	43.68	37.6	44.79	37.5	37.90	39.8	42.14	37.2	45.01	38.1	37.28	38.8
Switchboard-operator-receptionists	2,129	41.00	37.9	1.08	41.89	37.0	40.97	38.3	42.48	37.8	(2)	(2)	38.30	36.2	41.06	37.7	41.69	38.0
Transcribing-machine operators:																		
General	2,051	40.95	36.8	1.11	44.23	36.3	41.05	36.5	42.26	37.7	(2)	(2)	39.52	36.2	39.92	35.8	36.21	38.6
Technical	191	43.36	37.4	1.16	(2)	(2)	(2)	(2)	49.57	38.9			43.33	37.5	(2)	(2)	(2)	(2)
Typists:																		
Class A	4,622	41.36	36.6	1.13	42.28	35.8	41.50	36.3	43.24	37.2	(2)	(2)	38.34	36.2	48.05	37.8	42.65	38.0
Class B	8,457	34.96	36.8	.95	37.94	35.7	34.29	36.2	36.23	37.2	32.90	39.5	33.48	36.4	37.37	37.3	35.89	37.9

[1] Excluding overtime premium pay.

[2] Insufficient number of workers to justify presentation of an average.

ay workweek. For women workers, the prevnce of the 5-day week was even more pronced, as 800 out of 879 establishments which ployed women operated on this schedule. The viest concentration of the 5-day week standard s in the manufacturing establishments—all the tral and administrative offices reported a 5-day rkweek and all but a negligible number of the nt offices operated on this plan.

Regular or normal hours of work per week ried considerably, with the largest concentrans at 40 hours, 35 hours, and 37½ hours. The -hour week was most prevalent. For women, was scheduled by about 40 percent of the offices d for men by about 35 percent. Next in imrtance was the 35-hour week. The work eks in the various industry groups followed this er-all pattern, except that in the finance, insurce, and real estate group, concentrations of the -hour and 40-hour workweek schedules were out equal.

The prevalence of 40-, 35-, and 37½-hour workek schedules is further emphasized by an analysis average weekly hours by occupation. In occupaons in which more than two-thirds of the women rkers were employed, average weekly hours nged from 37 to 38 hours. Similarly in the en's occupations, almost 70 percent of the workers re in jobs for which the average workweek was tween 37 and 38 hours.

pplementary Benefits

Paid vacations for office workers were provided all except 6 of the 884 establishments studied. ter 6 months' service, 45 percent of the firms nted vacations, three-fourths of whom allowed week. All but 1 of the 878 firms providing paid cations required a year or less of service; 87 rcent of these granted 2-weeks' vacations. ly 11 of the 878 firms provided for vacations nger than 2 weeks.

Paid holiday provisions varied widely, ranging om no paid holidays in 2 firms to 16 holidays 1 establishment. In all industries combined, out 30 percent of the companies observed 11 lidays, about 20 percent provided for 7, and proximately 1 percent (9 firms) reported fewer an 6. The proportion of firms with 11 holidays s heavily influenced by the finance, insurance, d real estate group, in which almost 60 percent had 11 paid holidays and an additional 20 percent had more than that number. Observance of 11 paid holidays predominated to a somewhat less extent in central and administrative manufacturing offices; wholesale trade; and transportation, communication, and other public utilities.

Slightly more than 20 percent of the establishments had formal sick-leave provisions.[4] In almost three-fifths of these firms, such provisions were effective after accumulation of 6 months' service or less. The typical sick-leave provisions varied considerably, time allowances ranging from less than 1 week to more than 3 weeks. About two-thirds of the 188 establishments with formal systems granted at least 2 weeks with pay, after 2 years' service. By industry group, the greatest proportion of establishments with paid sick-leave provisions were in retail trade; central and administrative manufacturing offices ranked next.

About 65 percent of the firms had insurance or pension plans providing general life insurance, health insurance, retirement benefits, or combinations of two or more of these plans. This proportion of firms having insurance plans was fairly consistent throughout all the industry groups, except that in central and administrative manufacturing offices, all but 2 of the 60 establishments studied had insurance or pension plans.

Nonproduction bonuses were paid in about 48 percent of the firms studied. Typically, the bonus was a Christmas or year-end payment. Slightly more than a fourth of the Christmas bonuses were paid as a flat amount, while in the remaining instances the amounts varied according to individual workers' earnings or other factors, such as length of service. A small proportion of the establishments reported profit-sharing bonuses. The practice of paying bonuses was more prevalent in the nonmanufacturing industries than in manufacturing. In the latter group, 41 percent of the firms reported nonproduction bonus provisions, as compared with 51 percent in the 5 nonmanufacturing groups combined.

[4] Information on paid sick leave is restricted to formal provisions, usually for a definite number of days a year for which the employee is paid his regular salary if absent on account of illness. Health-insurance plans calling for payments of specified amounts or of fractional salary payments are not considered as paid sick leave in this analysis, even if premiums are paid wholly by the company. It is understood that many of the 689 establishments reporting no formal sick-leave provisions, actually do pay sick leave, but handle the problem on an individual basis.

Grain Milling Industry: Wage Structure, January 1948 [1]

GRAIN MILLING WORKERS in plant jobs, as a group, averaged 99 cents an hour on a straight-time basis in January 1948 (table 1). Earnings of individual plant workers ranged from under 45 cents to more than $2 an hour. Of the more than 28,000 plant workers employed in this widely dispersed industry, nearly a tenth were paid less than 65 cents, and a sixth of the total force earned less than 75 cents an hour. Straight-time hourly earnings of $1.40 or more were received by approximately 1 out of every 20 workers. Averages in the Middle West [2]—the region with the largest concentration of mill workers—equaled the national averag Higher averages were recorded in 4 regions: Gr Lakes ($1.06), Mountain ($1.10), Middle Atlan ($1.22), and Pacific ($1.35). Workers in t Southwest, Border States, and Southeast regio averaged 88, 83, and 71 cents, respectively.

Among 18 representative grain milling Stat average hourly earnings ranged from 71 cents North Carolina to $1.34 in Oregon and Washi ton. The national average of 99 cents was a exceeded in New York ($1.27), Minnesota ($1.1 Ohio ($1.09), Missouri and Michigan (each $1.0 and Illinois ($1.01). Three major producti areas, Kansas City, Buffalo, and Minneapoli St. Paul, together account for approximately sixth of the total employment in the industr Average earnings in each of these areas exceed the national average by 12 percent or more. Pla workers, as a group, averaged $1.31 an hour Buffalo, $1.20 in Minneapolis-St. Paul, and $1. in Kansas City.

The general work activities that are common nearly all flour milling or meal grinding mills inclu grain storage; grain weighing, cleaning, and cond tioning; milling; packing; shipping; and maint nance and repair. Flour blending, cleaning a repairing of shipping sacks, and power plant op ations are also commonly found. Approximat an eighth of the total labor force is engaged

[1] Prepared by Toivo P. Kanninen of the Bureau's Division of Wage Analysis. The collection of data for this study was directed by the Bureau's regional wage analysts. More detailed information is provided in a mimeographed report: Wage Structure—Grain Milling.

The scope of the survey corresponds to industry 2041 in the Standard Industrial Classification Manual, excluding mills employing fewer than 8 workers. The study, conducted by mail, included 405 establishments, employing more than 22,000 workers in January 1948.

[2] The regions used in this study are: *Middle Atlantic*—New Jersey, New York, and Pennsylvania; *Border States*—Delaware, District of Columbia, Kentucky, Maryland, Virginia, and West Virginia; *Southeast*—Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, and Tennessee; *Great Lakes*—Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin; *Middle West*—Iowa, Kansas, Missouri, Nebraska, North Dakota, and South Dakota; *Southwest*—Arkansas, Louisiana, Oklahoma, and Texas; *Mountain*—Arizona, Colorado, Idaho, Montana, New Mexico, Utah, and Wyoming; and *Pacific*—California, Nevada, Oregon, and Washington.

TABLE 1.—*Percentage distribution of all plant workers in grain milling establishments, by straight-time average hourly earnin and region, January 1948*

Average hourly earnings	United States	Middle Atlantic [3]	Border States	South-east	Great Lakes	Middle West	South-west	Moun-tain	Pacific
Under 45.0 cents	0.4	----------	0.6	1.8	----------	----------	1.0	----------	----------
45.0–49.9 cents	.3	----------	.7	2.1	0.1	0.1	(4)	----------	----------
50.0–54.9 cents	1.2	----------	2.2	2.9	.3	.2	4.1	----------	----------
55.0–59.9 cents	2.5	0.1	4.3	9.8	.7	.4	5.2	----------	----------
60.0–64.9 cents	5.4	.9	9.8	27.8	1.5	.8	5.7	0.3	----------
65.0–69.9 cents	2.9	.7	9.5	10.8	1.0	1.4	2.5	.1	----------
70.0–74.9 cents	4.2	1.8	7.0	10.8	2.1	5.5	3.0	.8	----------
75.0–79.9 cents	4.7	1.6	14.3	8.4	2.2	3.7	7.3	2.0	----------
80.0–84.9 cents	4.5	1.9	6.7	6.0	4.6	5.7	4.9	1.8	----------
85.0–89.9 cents	6.5	2.7	9.2	6.5	8.8	5.3	9.5	3.5	----------
90.0–94.9 cents	8.5	2.1	4.9	2.9	7.3	9.4	22.3	5.1	----------
95.0–99.9 cents	12.8	2.8	14.8	3.0	12.2	23.8	16.6	5.9	
100.0–104.9 cents	7.2	5.7	4.9	2.8	7.5	10.9	5.3	19.7	
105.0–109.9 cents	7.0	4.3	3.7	.2	7.3	14.4	5.0	10.9	
110.0–114.9 cents	4.2	3.0	2.0	.5	7.9	4.1	1.3	11.9	
115.0–119.9 cents	6.0	12.6	1.9	.8	12.0	4.3	1.2	12.7	
120.0–124.9 cents	6.2	19.4	.9	.4	7.9	4.6	1.0	10.8	
125.0–129.9 cents	4.5	5.4	.7	.9	7.6	2.0	.9	4.2	
130.0–134.9 cents	2.7	5.5	.3	.2	2.0	.9	.6	3.2	
135.0–139.9 cents	3.5	16.4	.3	.3	2.3	.5	.2	3.5	
140.0–144.9 cents	1.3	2.2	.1	.6	2.3	.1	.2	.6	
145.0–149.9 cents	.8	1.1	.2	.1	.5	.7	(4)	.6	
150.0–159.9 cents	1.1	4.8	.1	.1	.8	.3	.8	.7	
160.0–169.9 cents	.6	1.9	.7	----------	.3	.3	.1	.3	
170.0–179.9 cents	.4	2.6	----------	.2	.3	.2	(4)	.5	
180.0 cents and over	.6	.5	.2	.1	.5	.4	1.3	.9	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Number of workers	28,220	2,438	1,867	3,269	6,415	6,625	4,464	1,357	
Average hourly earnings	$0.99	$1.22	$0.83	$0.71	$1.06	$0.99	$0.88	$1.10	

[1] Excludes premium pay for overtime and night work.
[3] Includes 1 small establishment in New Hampshire.
[4] Less than 0.05 of 1 percent.

acking flour and meal.[3] The packing of animal ed, a grain milling byproduct, requires about percent of the work force. Hand trucking, weeping, loading, and truck driving also require considerable number of workers in the industry. obs directly related to processing of the grain count, in the aggregate, for a relatively small roportion of total employment. Key job groups quired for the installation and maintenance of e mechanical equipment employed in processing nd conveying grain are the millwrights, mill-right helpers, and oilers. Women account for ss than 3 percent of the plant work force in the dustry and are employed mainly in flour packag-g and sack repair work.

ccupational Variations in Earnings

Men flour packers, the largest occupational roup in grain mills, averaged $1.01 an hour table 2). Industry-wide average hourly earnings r men in other numerically important jobs were and truckers, 92 cents; feed packers, 93 cents; loaders, 95 cents; sweepers, 96 cents; oilers, $1.02; second millers, $1.10; and millwrights, $1.34. Regional averages for the key occupations ranked, for the most part, in the same order as those for all plant workers combined. Average hourly earnings for hand truckers ranged from 64 cents in the Southeast region to $1.27 in the Pacific; second millers averaged 91 cents and $1.52 an hour, respectively, in these two regions. The inter-regional wage spread was considerably greater, measured on a percentage basis, among the lower paid jobs than was the case in the second miller or millwright jobs.

Other Factors in Earnings Variations

Occupational wage levels among grain mills are also influenced in part by such factors as size of establishment, size of community, type of mill, and unionization. Differences in earnings owing to any of these factors cannot, however, be precisely measured.

Based on tabulations of individual mill characteristics, workers in large establishments in general had higher earnings than those employed in similar jobs in small establishments. Furthermore, the occupational averages were higher in mills located

[3] The volume of work in small mills does not permit a high degree of job specialization; the number of workers shown in some of the individual job categories in table 2, therefore, understates the proportion of total employment in such work.

TABLE 2.—*Average straight-time hourly earnings[1] for selected occupations in grain milling establishments, by region, January 1948*

Occupation and sex	United States		Average straight-time hourly earnings in—							
	Number of workers	Average hourly earnings	Middle Atlantic[2]	Border States	South-east	Great Lakes	Middle West	South-west	Moun-tain	Pacific
Men										
Bolters	211	$1.20	$1.47	$1.00	(3)	$1.17	$1.10	$1.06	$1.27	$1.45
Firemen	144	1.06	1.19	(3)	(3)	1.08	1.05		(3)	(3)
Grinders	305	1.04	1.33	(3)	$0.58	1.08	1.06	.72	(3)	1.54
Loaders	1,587	.95	1.16	.83	.65	1.00	.95	.75	.96	1.30
Millers, head	327	1.31	1.19	1.17	1.15	1.45	1.27	1.13	1.45	1.65
Millers	487	1.12	1.31	.91	.94	1.09	1.05	1.18	1.20	1.50
Millers, second	668	1.10	1.16	.96	.91	1.15	1.10	.97	1.15	1.52
Millwrights (class not designated)	374	1.34	1.58	1.12	1.15	1.24	1.31	1.35	1.49	1.62
Millwrights, 1st class	61	1.51	(3)			1.42	1.60	(3)		(3)
Millwrights, 2d class	44	1.30	(3)			1.27	(3)	(3)		
Millwrights' helpers	131	1.06	1.43	(3)	(3)	1.09	1.13	.90	(3)	(3)
Oilers	722	1.02	1.19	.83	.69	1.02	.96	.88	1.13	1.30
Packers, feed	1,698	.93	1.08	.80	.64	1.00	.93	.85	1.08	1.35
Packers, flour (excludes head packers)	3,100	1.01	1.27	.81	.72	1.06	.99	.89	1.10	1.36
Packers, small package	78	.97	(3)		(3)	1.11	1.07	.80		(3)
Roll tenders	122	1.02	(3)	(3)	(3)	1.03	1.02	.97		
Sack cleaners	89	1.02	(3)	(3)	(3)	1.03	.97	(3)	(3)	(3)
Shovelers, wheat	424	.96	(3)	(3)	(3)	1.08	.97	.76	(3)	
Smutters, washers and temperers	212	1.15	1.31	(3)		1.15	1.07	.99	(3)	1.38
Sweepers	1,694	.96	1.13	.76	.70	.98	.92	.78	1.04	1.25
Truck drivers	1,464	.83	.90	.71	.68	.91	.86	.85	1.08	1.43
Truckers, hand	2,274	.92	1.17	.81	.64	1.08	.95	.85	1.10	1.27
Watchmen	390	.88	1.09	.68	.66	.88	.91	.81	.97	1.21
Women										
Packers, flour (excludes head packers)	165	.94	(3)	(3)	(3)	.97	(3)	(3)	(3)	
Packers, small package	143	1.02	1.10			.86	(3)	.80		(3)

[1] Excludes premium pay for overtime and night work.
[2] Includes 1 small establishment in New Hampshire.
[3] Insufficient number of workers to justify presentation of an average.

in large communities than in small communities, in mills owned by multi-plant firms than in those operated by single-plant firms, and in union mills as compared with nonunion mills. Average straight-time hourly earnings for men sweepers, for example, varied by mill group as follows: $1.03 in large mills (101 or more workers), 90 cents in medium sized mills (51–100 workers), and 82 cents in small mills (8–50 workers); $1.03 in communities of 100,000 or more population, 87 cents in those of 25,000–100,000 population, and 89 cents in communities of less than 25,000 population; $1.03 in mills of multi-plant firms, and 87 cents in mills of single-plant firms; and $1.02 in union mills, and 78 cents in nonunion mills. The interrelated nature of these factors is suggested by the general similarity of the wage level in large mills, large communities, mills of multi-plant firms, and union mills. For example, although only 55 of the 405 mills in the study employed more than 100 workers, this group included 37 of 81 mills located in large cities, 30 of 88 mills operated by multi-plant firms, and 46 of 143 union mills.[4]

Supplementary Wage Practices

The operation of extra shifts and payment of differentials for work on these shifts were quite common in the industry in January 1948. On a Nation-wide basis, approximately two-thirds of the cooperating mills operated a second shift and about a half operated a third shift. Regionally, extra shift operation was most commonly practiced in the Middle West, Southwest, Mountain, and Pacific regions. Shift differentials—in nearly all cases a uniform cents-addition to the first-shift rate—were paid by three-fifths of the establishments operating second shifts and by four-fifths of the mills reporting a third shift. Second-shift workers were paid an additional 4 cents an hour in 79 of 149 mills reporting differentials; the second most common differential, 5 cents an hour, was reported by 44 establishments. Of 143 mills with established differentials for third-shift work, 87 mills paid 6 cents and 35 mills paid 5 cents an hour over the first-shift rate.

[4] An estimated two-thirds of the workers in the industry were employed in union mills, indicating a higher-than-average degree of unionization among large mills. The International Union of Flour, Feed, and Cereal Workers (an American Federation of Labor affiliate) is the major union in the industry.

Although a 40-hour workweek was the schedule most commonly reported in the industry, two-thirds of the reporting establishments listed weekly work schedules of 48 hours or more. Of a total of 375 grain mills supplying data relating to the weekly schedule for first-shift workers, 108 mills reported a 40-hour week, 104 mills reported a 48-hour week, and 142 mills scheduled workweeks of 50 hours or more. More than half of the mills in the Border States and Southeast regions reported workweeks of 50 hours or more; in contrast, only 3 of the 22 reporting mills in the Mountain region and none of those in the Pacific region indicated schedules of over 48 hours.

Incentive methods of wage payment were not employed to any appreciable extent in the industry. The total number of workers paid on an incentive basis accounted for only 2 percent of all plant workers in the industry. More than 9[illegible] percent of the plant workers were paid hourly rates. Salaried workers, accounting for 6 percent of the total, were more commonly paid on a weekly than on a monthly basis. Of the 405 mills participating in the study, 350 paid their workers (other than the monthly salaried) each week, 2[illegible] paid every 2 weeks, and the remainder had longer pay-roll periods.

Footwear Manufacturing: Earnings, September 1947 [1]

STRAIGHT-TIME HOURLY EARNINGS for vamp and whole shoe machine cutters in plants making women's shoes by the cement process ranged, among 6 New England areas, from an average of $1.36 in Auburn-Lewiston, Maine, to $1.63 in Boston in September 1947 (see accompanying table). Comparable workers in Los Angeles averaged $1.87 an hour and those in New York City and St. Louis, most of whom were employed in plants making the same type of shoes, had average earnings of $1.81 and $1.61, respectively. Machine cutters in plants

[1] Prepared in the Bureau's Wage Analysis Division. Establishments in the 13 selected areas included those primarily engaged in the manufacture of footwear (other than house slippers or rubber footwear), and employing 8 or more workers. The sample included 211 establishments.

The average hourly earnings include incentive payments but exclude premium pay for overtime and night work.

pecializing in men's Goodyear welt shoes in Brockton and Worcester, Mass., had respective verages of $1.61 and $1.55. In Milwaukee lants making various types of shoes they averaged 1.56, in Missouri (except St. Louis) $1.22, and in Pennsylvania, $1.06. In all except two cities, his occupation employed the greatest number of nen among all those studied; hand cutters predominated in New York City, where they earned $2.26, n the average, and in St. Louis, where they received $1.54. Cutters of both types were generally paid on an incentive basis in all areas studied.

Fancy stitchers, a leading women's occupation, veraged $2.60 an hour in New York City and 1.68 in Los Angeles. Among the women's ement process plants in New England the area verages were grouped between $1.10 and $1.30, he latter in Boston. Missouri (except St. Louis) nd Pennsylvania, with identical averages of 84 ents an hour, had the lowest earnings among ll areas studied. These workers also were sually paid under piece rate or other incentive ystems.

The inter-area wage relationships just described or these two jobs were generally found to exist in most of the other occupations.[2] Workers in New York City usually showed the highest or next to the highest average earnings. Those in Los Angeles and Boston generally had higher earnings than comparable workers in other cities, except New York, whereas those in the wider, State areas of Missouri (except St. Louis) and Pennsylvania were usually below all others in the wage ladder.

Supplementary Wage Practices

A regular workweek of 40 hours was in effect in all establishments in 8 of 13 areas. Of the 211 establishments studied, only 15 had a workweek of more than 40 hours for men and 14, for women; none had a regular workweek of less than 40 hours. Most of the establishments with the longer workweek were located in the Milwaukee and Pennsylvania areas.

All but 15 of the total number of establish-

[2] The figures presented for 6 of the 7 New England areas cover the manufacture of one type of shoe only. However, in only 1 of these 6 areas was the portion of the industry not studied of appreciable size; in the other 5 it is doubtful that the inclusion of the relatively smaller number of workers would have seriously affected the inter-area relationships, although they might have changed the individual averages somewhat.

Average straight-time hourly earnings [1] for selected occupations in footwear establishments, by type of shoe and process and wage area, September 1947

Occupation, grade, and sex	Women's cement process							Predominantly women's cement process		Men's Goodyear welt process		Various types and processes [2]		
	Los Angeles, Calif.	Auburn-Lewiston, Maine	Boston, Mass.	Haverhill, Mass.	Lynn, Mass.	Worcester, Mass.	Southeastern New Hampshire	New York, N. Y.	St. Louis, Mo.	Brockton, Mass.	Worcester, Mass.	Milwaukee, Wis.	Missouri (except St. Louis)	Pennsylvania
Plant occupations														
Men:														
Bed machine operators	$2.11	$1.49	$1.58	$1.81	$1.70	$1.67	$1.66	$2.14	$1.56	$1.53	$1.38	$1.61	$1.31	$1.20
Cutters, vamp and whole shoe, hand	1.83	[3]	1.61	1.49	1.59	1.10	[3]	2.26	1.54	1.50	1.20	1.66	1.20	1.43
Cutters, vamp and whole shoe, machine	1.87	1.36	1.63	1.51	1.58	1.46	1.49	1.81	1.61	1.61	1.55	1.56	1.22	1.06
Edge trimmers, machine	1.54	1.59	1.97	1.87	1.67	1.73	1.78	2.19	1.62	1.80	1.51	1.68	1.30	1.25
Floor boys	[3]	.84	.82	.80	.78	.80	.70	.84	.69	.76	[3]	[3]	.74	.68
Goodyear stitchers	[3]	[3]	[3]	[3]	[3]	[3]	[3]	1.69	[3]	1.53	1.51	1.60	1.16	1.13
Mechanics, maintenance	1.62	1.58	1.69	1.28	1.64	1.48	1.36	[3]	1.53	1.60	1.57	1.73	1.11	1.19
Sole attachers, cement	1.32	1.41	1.74	1.51	1.52	1.27	1.47	2.17	1.37	[3]	[3]	1.23	.99	.94
Treers	[3]	1.21	1.50	1.66	1.47	1.26	1.48	2.17	1.40	1.51	1.54	[3]	1.19	1.17
Vampers	[3]	[3]	1.29	[3]	[3]	[3]	[3]	2.04	[3]	1.43	1.18	[3]	[3]	1.30
Women:														
Fancy stitchers	1.68	1.17	1.30	1.17	1.10	1.12	1.14	2.60	1.13	1.12	1.00	1.14	.84	.84
Floor girls	[3]	.84	.89	.82	.82	.86	.83	.96	.78	.81	.81	.99	.77	.72
Treers	1.04	[3]	[3]	[3]	[3]	[3]	[3]	[3]	1.25	[3]	[3]	1.12	.98	.73
Vampers	1.66	[3]	[3]	.95	[3]	1.07	[3]	[3]	1.10	1.32	1.15	1.37	.84	.86
Office occupations														
Women:														
Clerk-typists	.92	.74	.76	.87	.79	[3]	[3]	.90	.76	.74	.72	.76	.75	.76
Stenographers, class A	[3]	[3]	[3]	[3]	[3]	[3]	[3]	[3]	[3]	[3]	[3]	1.09	[3]	[3]
Stenographers, class B	1.01	[3]	.84	.76	.72	.67	.79	[3]	.82	.70	.84	.82	.80	.78

[1] Excludes premium pay for overtime and night work, but includes earnings under incentive systems.
[2] Includes cement, Goodyear welt, stitchdown, as well as other processes.
[3] Insufficient number of workers to justify presentation of an average.

ments granted a paid vacation to their plant workers of 1 week after 1 year of service. Of this group, 72 increased the vacation period to 2 weeks after 5 years of service. Most of the 72 plants were located in Brockton, New York City, Missouri (except St. Louis), and St. Louis; all establishments studied in Brockton had this feature.

Among the establishments studied, 5 out of every 7 paid their plant workers for 1 or more holidays not worked. Brockton and Auburn–Lewiston were the only areas in which none of the establishments studied had a paid holiday plan. In all the other areas at least half of the plants had such plans. Payment for 6 holidays was the predominant practice in the New York, Boston, Haverhill, and Lynn areas; and for 3 holidays, in Los Angeles, Milwaukee, Missouri, and St. Louis.

Postwar Changes in the Quality of Apparel [1]

THE MOST RAPID and consistent return to 1941 quality levels was achieved in the production of goods of which the supply has nearly always been sufficient to meet consumer demand, as in soft woolens, and in the more standardized lines of merchandise, such as men's hose and undershirts.

Gradual removal of wartime production restrictions in 1945 and 1946 enabled manufacturers to use better materials than during the war period, and to introduce a diversity of styles in 1947. Restoration of nylon for civilian use in the first year of peace improved the appearance and wearing qualities of women's hosiery and lingerie.

Changes in Fabrics

Cancellation of military contracts after VJ-day for a wide variety and large amounts of all types of textiles from tentage duck and wool overcoating to surgical gauze released a large quantity of high grade fibers and a large proportion of the cotton and wool looms for consumers' goods.

Wool fabrics. Increased availability of fine wools and greatly expanded production facilities after August 14, 1945, resulted in better grade wo fabrics for civilians, even though this field of te tiles had retained its prewar standards somewh more successfully than the other major categori of apparel.

Blended wool fabrics, i. e., wool combined wit rayon, cotton, or casein fiber (such as "Aralac" which had been commonplace in lower price woolen clothing for children and women durin the first 2 war years, declined sharply in acceptanc a year before the war ended.[2] Wool labeling which became mandatory in July 1941, enable consumers to identify the fiber content of woo apparel, and may have accelerated the trend toward goods made entirely of new wool.

The demand for hard finished worsted fabrics used extensively for making suits, seemed almos insatiable in the 3-year period after VE-day particularly for the reoutfitting of men returnin from military service. This was probably the major reason for the 30-percent decline in the quantity of the soft-finished ("woolen") apparel fabrics woven in 1947 compared with 1946. Worsted cloth production in 1947 remained close to the high level of 1946,[3] and mill operations appeared likely to continue near capacity throughout 1948. As late as January 1947 the demand for worsted fabrics in spite of their high cost was attributed to reaction against some of the inferior wartime suitings.[4] In March 1947, when a balance in the demand and supply for "woolen" fabrics was being approached, garment manufacturers, for the first time in 5 years, began to reject "woolen" goods having imperfections. They complained that the closeness of the weave had been reduced, the weight of the cloth per yard had decreased, or shrinkage had been insufficient.[5] For worsted goods of which the output had not yet overtaken the abnormally high demand by the spring of 1948, clothing manufacturers stated as early as December 1947 that imperfections such as slubs, holes, and streaks were marring worsted suiting fabrics and increasing the cost of apparel.[6]

To keep down costs and maintain a high production rate, some manufacturers in the wool tex-

[1] By Louise J. Mack of the Bureau's Branch of Consumers Prices.

[1] Cost of Clothing to Moderate-Income Families, Monthly Labor Review, July 1944 (p. 178).

[2] Wool consumption statistics in Bureau of the Census, Facts for Industry, Wool Manufactures, January 1947 and January 1948.

[4] Journal of Commerce (New York), January 20, 1947.

[5] Idem, March 10, 1947.

[6] Daily News Record, December 29, 1947.

industry have adopted a simpler method of king worsted fabrics in recent years. The uced labor cost and greater ease in making nded fabrics under this new system of worsted rication—variations of which are known as the otton," "American" or "Newnan" system—ord consumers attractive worsteds with greater ersity of patterns at lower prices than the older thods, according to a manufacturer using this stem.

Woolen manufacturers reintroduced light and ight colors and increased the variety of designs rly in 1947.[7] Textile dyestuffs, released by the ar Production Board from wartime restrictions early as the week after VJ-day, were not available in sufficient quantity and types to fill the mand of wool cloth producers and other textile nufacturers until the latter part of 1947.[8]

In response to the general re-awakening of terest in textile quality after the war, research lating to shrinkage control and washability of oolen goods, both woven and knit, was intensi-d.[9] Further improvements were believed by an ficial of a large woolen goods firm to be necessary maintain the brilliancy of some dyes and to sure a suitable "hand" for some fabrics when emically treated for shrinkage resistance.[10]

Cotton Fabrics. There was a large backlog of emand for cotton fabrics in the first year and a alf after VJ-day. It was augmented by veterans' eeds for cotton furnishings in the first year of demobilization. Cotton mills' production in 1945 eclined to 8,700 billion linear yards, the lowest utput in the 6 years from 1941 to 1947. The rmy's release to civilian markets, immediately fter VJ-day, of eagerly sought fabrics such as 80 quare and lower count print cloths, shirtings, rills, and narrow sheetings, did not bridge the ide 1945 gap between civilian need and depleted tocks.

The slump in cotton and other textile prices in he first half of 1947 and consumer pressure for etter cotton goods speeded reconversion of looms rom "substandard" wartime constructions of rint cloths and narrow sheetings to conventional constructions having higher thread count which impart more strength and better appearance to such material.[11] It was not until the first quarter of 1948 that the pressure for cotton apparel fabrics eased to the extent that mills, retailers, and consumers shifted emphasis from quantity to quality.

Not all of the 12-percent increase in cotton goods output which occurred between 1945 and 1947 reached retail stores in the United States. Exports of cotton cloths rose nearly 800 million square yards, or 116 percent, from 1945 to 1947, and absorbed a sizable portion of the increase in cotton cloth production in this 2-year period. Industrial users of cotton, such as the automobile industry, also received a substantial yardage after 1945.

Since production of 80 square print cloths rose nearly one-quarter billion yards from 1945 to 1947, considerable improvement occurred in women's and girls' dress goods and fabrics for men's furnishings. By March 1947, housewives could purchase 80 square percale for home sewing, nearly all types of cotton goods having been extremely hard to purchase in yard goods departments since the last quarter of 1943.[12] In the first half of 1948, many of the dress fabrics, particularly ginghams, were designed in novel patterns and the better quality lines were sometimes given a "taffetizing" finish which added luster to fine woven cotton goods.

After 1946, combed cotton yarn replaced carded cotton yarn in an increasing proportion of cotton knitwear—such as anklets, underwear, and polo shirts—according to reports of Bureau field representatives who visited stores monthly to collect retail prices for the Bureau's consumers' price index. Combed cotton yarn, when properly prepared, is superior to carded yarn both in durability and appearance. Similarly, in the field of woven cotton goods, rising production of combed broadcloths, chambrays, ginghams, and other shirting and dress fabrics in 1946 and 1947 gradually resulted in the restoration of the quality of the medium and higher priced cotton garments to prewar levels; carded broadcloths and the better print cloths were released for their normal role in moderate priced apparel. For example, the Bureau's field staff reported in the last quarter of 1947 that combed broadcloth shirts had finally become available in sufficient quantity to be

[7] Journal of Commerce (New York), March 11, 1947.
[8] Idem, May 5, 1947.
[9] Daily News Record, June 4, 1947; Journal of Commerce, June 6, 1947.
[10] New York Times, May 26, 1948.
[11] Journal of Commerce, January 24 and January 28, 1947; March 7, 1947.
[12] Based on information obtained quarterly by the Bureau of Labor Statistics in retail stores in 34 large cities.

displayed on retailers' shelves. They also observed that a larger portion of girls' cotton slips offered in department stores were made from combed than from carded fabrics in the first quarter of 1948, reversing an earlier relationship.

In spite of the postwar recovery in the quality of cotton goods, leaders in the laundering, housedress, and men's cotton apparel fields urged in April 1948 that the industry return to its prewar attitudes on quality of fabric. An expert in laundering research warned that "the consumer has built up a tremendous head of steam against shabby high-priced merchandise."

Housewives showed increasing preference for colorfast fabrics that do not require separate washing and cotton goods having a residual shrinkage of 1 percent or less.[13] The firm controlling the most widely used method of reducing residual shrinkage in cotton fabrics to 1 percent announced that the number of companies permitted to use its process had risen from 109 in 1940 to 141 in 1946, and that a record high yardage of cotton goods was given this shrinkage treatment in the first quarter of 1948. In 1947 and 1948, most cotton work apparel and branded business shirts were being processed to have residual shrinkage of 1 percent or less, thereby insuring better fit and longer use than many purchasers obtained in prewar years.

Rayon Fabrics. The quality of rayon textiles did not change markedly between 1945 and 1947, as mills made every effort to satisfy the insistent postwar demand for yardage. This industry had relatively few conversion problems and production of broad woven rayon fabrics reached a new all-time high in 1947 and early 1948, although there were still occasional shortages of some of the desirable piece goods.

Need for skilled workers and shortages of filament yarn [14] limited to some extent the planned expansion and diversification of postwar production. The plied yarn rayon crepes—which are comparatively complex in structure and are popular in solid colors for street and formal dresses—remained on the list of scarce materials and did not regain their prewar variety of weave.[15] Mill making plied yarn crepes tended to concentrate on the lighter weight fabrics which required less yarn per yard. The wartime shortage of rayon twill linings, which are also woven from filament yarns, persisted through most of 1947.

Warp knit fabrics, which are more run-resistant than circular knit material, increasingly replaced the latter in rayon underwear and nightwear after the war. A production ratio of 2 to 1 in favor of circular knit underwear as of August 1945 had been reduced to nearly a 1 to 1 ratio by February 1948. The Bureau's field staff have reported for a number of years a steady increase in the proportion of warp knit compared to circular knit rayon panties in department store stocks.

Nylon Fabrics. The greatest portion of nylon yarn since August 1945 has been allocated to hosiery mills. Nylon hosiery for women more than regained its earlier popularity, with rayon and silk hosiery ranking a poor second and third, respectively, in 1946 and subsequently. Although a limited quantity of nylon stockings were available by the end of 1945, it was not until the first quarter of 1947 that they could be purchased at will. Nylon 51 gauge full-fashioned hosiery has been most popular and an increasing quantity of these better wearing stockings are being made. Many manufacturers have retained the wartime practice instituted by the OPA of stamping the gauge of needles and sometimes the denier on each pair of full-fashioned nylon stockings so that consumers may identify easily the construction of hosiery which they wish to buy.

Nylon yarn has been used advantageously since the first quarter of 1946 in the toes and heels of men's hose, chiefly rayon, to resist abrasion at those two points of greatest wear.

New nylon knit fabrics and woven lingerie materials were developed after the war. This synthetic has been combined successfully with rayon yarn in knit and woven underwear fabrics to provide strong, fast-drying garments. Nylon fabrics introduced in girdles in 1946 followed by the use of natural instead of synthetic rubber in 1947, also improved the washability and strength of these garments. Removal of WPB limitations on the use of rubberized materials in foundation garments resulted in the reappearance of two-way stretch fabrics in 1946.

[13] Women's Wear Daily, May 5, 1948.

[14] Rayon is produced in the form of (a) filament yarn resembling silk yarn in structure, or (b) staple fiber of short uniform lengths which is made into "spun rayon" yarn.

[15] New York Times, December 15, 1947; Wall Street Journal, December 3, 1947; New York Herald Tribune, January 29, 1946.

Silk Fabrics. Release of all price and production controls on silk products by the third quarter of 1946, after silk had been withdrawn from civilian use for 5 years, did not result in rapid resumption of silk hosiery and fabric production. Prices for grade D white silk of 13/15 denier fell from $7.46 in July 1946 to $2.60 per pound in January 1948. Some silk fabrics were woven for the volume dress market in 1947, but erstwhile silk weavers preferred to continue the production of rayon fabrics as long as the demand remained steady for them. Primarily for the same reason, silk had not regained its prewar status in moderate price lingerie as late as May 1948.

Leather and Shoes. Footwear began improving in quality shortly after VJ-day, as the controls on the use of leather and on styling, which had been in effect for over 3 years, were lifted. When OPA ended shoe rationing on October 31, 1945, manufacturers discarded many wartime types of shoes which had been made of leather substitutes and retained only those styles developed in wartime which had proven acceptable. For example, vinyl plastic soles disappeared very quickly. However, plasticized rubber soles such as "Neolite" grew in acceptance because of their satisfactory wearing properties and the high cost of sole leather. Outsole leather prices nearly doubled from October 1945 to December 1947. As late as March 1948, several shoe-repair men were of the opinion that the quality of leather sold to them was below the prewar standard for the grade stamped on the leather. In February 1948, about one-third of the shoes were still being made with nonleather outsoles, compared with 43 percent of the civilian shoes manufactured in 1945.[16]

The better grades of nonleather insoles also retained an important postwar role in the production of women's shoes because of the very favorable cost differential and because nonleather insoles proved to be acceptable substitutes for leather in the opinion of many manufacturers. Likewise, coated fabrics continued to replace leather shoe linings in a large number of moderate priced shoes which had leather linings before the war.

Removal of the last of the WPB style restrictions on leather footwear in 1946 enabled manufacturers to diversify their lines, usually in the direction of less material in the uppers of women's shoes and heavier shoes for men. Owing to the high prices of calf and kid leathers after price decontrol of leather in October 1946, these desirable upper materials have been hard to find in moderate priced shoes.

Imitation leather made from plasticized materials has been substituted to a great extent for calf, goat, and cowhide leathers in women's handbags throughout the 3 years following VE-day. Although opinion has been divided regarding the superiority of the artificial product, there has not been any doubt that it was very much less expensive than the leather which it replaced.

Style and Construction Trends in Apparel

Men's and Boys' Apparel. Wartime style simplification designed to save fabrics needed for men's cotton furnishings such as business shirts and pajamas were removed a month after VJ-day. However, acute shortages prevented restitution of prewar yardage to work clothing, and forced the Civilian Production Administration to retain style restrictions on men's wool clothing and work garments until the end of 1946. The standards of tailoring have not altered appreciably since the prewar years, despite a growing shortage of skilled workers. However, in recent years hand detail has been omitted from men's and boys' clothing whenever it has been possible to do so without affecting the fit or appearance of a garment. For example, machine-made buttonholes have been used increasingly since the war. WPB's wartime withdrawal of the two-trouser suit and its slow reappearance on postwar hangers has been a real loss to men in moderate income families.[17] Less than 9 percent of the men's wool suits cut in the last quarter of 1947 had two trousers, although this ban was lifted in December 1946. The apparent shortage of worsted suiting fabrics, which suit manufacturers complained in February 1948 were going disproportionately into women's apparel and to the "grey market," may have deterred production of two-trouser suits.[18] Vests reappeared in double-breasted suits in the fall of 1947.

Work clothing, such as chambray work shirts and denim overalls, have regained their prewar

[16] Facts for Industry, Shoes and Slippers, February 1948; 1945 and 1944.

[17] Daily News Record, February 5, 1945.

[18] Idem, February 4, 1948.

roominess. However, some overalls still have fewer pockets, less desirable hardware, lighter weight pocketing material, and double instead of triple stitching.

In recent months, nationally known branded business shirts made of combed broadcloth have reached prewar quality and were available in sufficient volume to be purchased readily after a long transition period when undesirably sheer plain cloths and printed substitute fabrics were the chief stock on hand. The ocean pearl type buttons are fast replacing plastic buttons, particularly on the better grades of business shirts. The restoration of the longer traditional length shirt tail pleased many tall men.

Men's shorts and pajamas presented as many problems as business shirts to consumers and manufacturers. Men's shorts made from fabric having a finished thread count as low as 66 x 46 were being retailed in April 1947 for as much as 79 cents each. In testing 10 popular priced shorts purchased in five large cities in that month, the shrinkage was found to be as high as 4 percent in the most expensive shorts retailing for 89 cents. However, the residual shrinkage in half of the shorts purchased was less than 1 percent. The strength of the filling threads in one of the shorts and the strength of seams in two were as low as 19 pounds. By the end of 1947, fabric supplies had improved and undershorts and pajamas of prewar quality materials (such as 80 x 60 broadcloth and 68 x 72 percale) were once more available, according to the Bureau's field representatives in 34 large cities.

Women's and Children's Apparel. Wartime style simplification regulations for women's dresses, suits, and underwear were retained until October 1946 in order to promote maximum utilization of scarce fabrics and to minimize pressure against price ceilings. The longer skirt lengths and other departures from wartime "severity" styles in 1947 and 1948 tended to add spice to the wardrobe and dollars to the price tag with debatable results in terms of value to the consumer.

The longer skirts, which became less "new" looking by the fall of 1947, required longer slips, which were often trimmed with ruffles. Femininity returned to lingerie. Owing to the increased production of lace- and ruffle-trimmed slips and petticoats, tailored rayon slips became harder to find in the correct size in 1947 and the first quarter of 1948. "Inexpensive, tailored" slips of rayon crepe or satin to fit individual types of figures were among the better values in women's apparel throughout the war and postwar years. Unduly high shrinkage in some slips however was a major weakness noted in 10 tailored rayon crepe slips purchased by the Bureau in 5 cities in April 1947 and tested by the Bureau of Standards for performance.

During the war, some manufacturers reduced the size range of slips and dresses, especially house dresses, or curtailed the number of garments which could be purchased in the larger sizes. This practice was continued to a lesser extent even after all wartime controls had been removed, and as late as the spring of 1948 a shortage still existed of sizes 44 to 56 garments.[19] A similar condition existed in children's apparel until fabric supplies improved in 1947. Garments for children wearing size 7 to 14 were much harder to find than apparel for smaller children and infants.[20]

To fill retailers' racks during the last 3 years, wash dress manufacturers sometimes overlooked imperfect size patterns or careless cutting of garments.[21] The size standards for misses' and women's apparel appeared to be less uniform in the spring of 1948 than at any time in the last 10 years, and resulted in an increase in the number of returns of merchandise. However, some progress has been made since 1944 toward improving the fit of women's and children's apparel. Since the war, a growing number of manufacturers of women's apparel have specialized in making dresses to fit women of varying heights. A commercial standard of sizes for women's utility and house dresses developed by the National Bureau of Standards and approved by firms representing at least 65 percent of the production of these garments will become effective August 4, 1948. Similar voluntary standards were established for women's woven slips in April 1945. Since August 1945 the Bureau of Standards has also circulated dimensional data for children's apparel for 3 age and sex groups, which have enabled manufac-

[19] Women's Wear Daily, December 14, 1945, April 16, 1946, and February 12, 1948; New York Times, April 20, 1946.

[20] Journal of Commerce, April 24, 1946.

[21] New York Times, April 28, 1948, and May 18, 1948.

rers to design better fitting garments for young eople.

ote on Apparel Quality and the Consumers' Price Index

During the war the Bureau of Labor Statistics recogzed that the consumers' price index could not reflect fully e effect on prices of deterioration and shortages of goods hich occurred after the outbreak of the war, but the ureau was unable to estimate the quantitative effect of is deterioration upon the index.

Two committees not connected with the Bureau of Labor tatistics—the Committee on the Cost of Living appointed the request of the Department of Labor by the American tatistical Association, of which Dr. Frederick C. Mills as chairman; and the technical subcommittee of the resident's Committee on the Cost of Living, headed by rof. Wesley C. Mitchell of Columbia University—investiated the effect of quality deterioration and other factors pon the index. (See Report of the President's Committee n the Cost of Living (Office of Economic Stabilization, Washington, 1945), p. 14.)

In publishing its consumers' price index, the Bureau eferred to this report monthly from October 1944 through uly 1945, and carried the following footnote between ugust and October 1945.

"The index does not show the full effect of such factors as changes in quality and the availability of goods. During the war the quality of civilian goods has been lowered. The Bureau has attempted to account for the disappearance of low-priced merchandise by pricing the most similar article available. The President's Committee on the Cost of Living has estimated that such factors, together with certain others not fully measured by the index, would add a maximum of 3 to 4 points to the average price rise shown for large cities between January 1941 and September 1944. If small cities were included in the national average, an additional ½ percentage point would be added to the index."

In December 1945, Stabilization Administrator Collet ssued a regulation regarding wage increases in which he sed an upward adjustment of the Bureau's index by as much as 5 percentage points in determining cost-of-living ncreases. This amount included a small additional allowance for further quality deterioration and other immeasurble factors which might have increased the cost of living ince November 1944. Accordingly, this fact was noted in he explanatory notes carried by the Bureau in the monthly ublication of its index.

After December 1946, when many kinds of apparel, ousefurnishings, and other civilian goods of prewar type ad reappeared in the market and the Bureau was able to btain prices for many goods of prewar quality, this explanatory footnote was dropped from the consumers' price ndex, and the Bureau announced that it would leave the matter of any adjustment to the users of the index.

The present article describes the changes in quality which have taken place with the gradual disappearance of war-caused shortages.

Gas and Electricity: Price Changes in 1947

COST OF ELECTRICITY to domestic consumers turned upward during 1947 for the first time in many years, following the trend started in cost of gas a year earlier.

Prices for these utilities are now collected only from the 34 cities for which prices are used in constructing the consumers price index. Pricing was discontinued, as of June 1947, in 17 cities for electricity and in 16 cities for gas. For this reason the composite indexes for 1947 are not strictly comparable with the indexes for previous years.

Percent changes in bills for specified quantities of gas and electricity, from selected dates to December 1947, are shown below:

	Percent change to Dec. 15, 1947, from—	
	Dec. 15, 1946	*Dec. 15, 1939*
Electric bills:		
25 kilowatt-hours	+1.1	−9.8
100 kilowatt-hours	+ .6	−5.3
Gas bills:		
10.6 therms	+3.6	−1.1
30.6 therms	+3.7	−2.8

Electricity Prices

The largest annual increase in electricity rates for domestic consumers in the past 15 years occurred between December 1946 and December 1947. Increases in bills for 25 kilowatt-hours were more numerous than in the 100 kilowatt-hour class, and, conversely, decreases in the former class were less numerous. Advances took place in 7 cities for the smaller quantity and in only 4 cities for the larger. General decreases in both brackets were reported for Manchester, N. H., Denver, and Los Angeles. Increases for 25 kilowatt-hours and decreases for 100 kilowatt-hours were reported for St. Louis, Baltimore, and Richmond.

Changes in basic rates were approved during the year in Manchester, St. Louis, Baltimore, Norfolk, Richmond, Denver, and Los Angeles. In 3 of the 34 cities from which prices were collected for the full year, fuel adjustments contributed to increases. The sales tax was a factor in 4 cities.

The net result of price movements during the year was an increase of 1.1 percent in typical bills

for 25 kilowatt-hours, and an increase of 0.6 percent in those for 100 kilowatt-hours. However, these bills are approximately 10 percent and 5 percent, respectively, below the average for December 15, 1939.

Gas Prices

Typical gas bills increased in amount from December 15, 1946, to December 15, 1947, in 15 of the 34 cities surveyed. By far the majority of the increases occurred in cities served by manufactured gas. Increases in 10 of the 16 cities in which this gas is sold, resulted in an average increase of 6.0 percent for 10.6 therms, and 6.1 percent for 30.6 therms. In the 12 cities using natural gas there was a net decline in price of 3.1 percent for 10.6 therms and 3.9 percent for 30.6 therms.[1] The only advances for natural gas during the year were fractional increases for 30.6 therms in Pittsburgh and Mobile, and for 10.6 therms in Houston. Mixed gas was used in 6 of the 34 cities for which prices are collected. A considerable rise in rates in Cincinnati, late in 1947, contributed to an increase in mixed-gas quotations.

In Buffalo and Baltimore, sales tax measures enacted during the year contributed to higher costs for gas. Adjustments for higher fuel costs were allowed in Boston, Manchester, Portland (Maine), Baltimore, and Portland (Oreg.). Fuel costs probably account, in part, for the greater increases in recent years in cost of manufactured gas.

Decreases in both brackets were recorded for 5 cities (Minneapolis, Cleveland, Detroit, Kansas City, and Atlanta). A slight decline in bills for 10.6 therms was reported for Washington, D. C., which was due to a change from cubic feet to therms in method of measurement, and not to a reduction in rates. All the decreases took place in cities which use natural or mixed gas.

From December 1939 to December 1947 the average typical bill for 10.6 therms of gas dropped 1 percent, and that for 30.6 therms, 3 percent. During the same period the average typical bill for manufactured gas increased approximately 8 percent for 10.6 therms and 6½ percent for 30.6 therms. Natural gas and mixed gas decreased in cost by from 15 to 20 percent.

[1] Minneapolis and Washington, D. C., changed from mixed gas to natural gas during the year.

The following tabulation shows percent change in typical bills for manufactured, natural and mixed gas, from specified earlier periods to December 15, 1947.

	Percent change to Dec. 15, 1947, from—	
	Dec. 15, 1946	*Dec. 15 1939*
Manufactured gas:		
10.6 therms	+6.0	+8.1
30.6 therms	+6.1	+6.4
Natural gas:		
10.6 therms	−3.1	−15.1
30.6 therms	−3.9	−18.0
Mixed gas:		
10.6 therms	+1.4	−16.5
30.6 therms	+ .7	−20.1

Conferences on Industry-Wide Collective Bargaining

TRACEABLE ECONOMIC EFFECTS of the existing variations of industry-wide collective bargaining are not unfavorable, although certain dangers are inherent in such systems, it was generally concluded at a recent conference. The meeting was held on May 14, 1948, under the auspices of the Labor Relations Council of the Wharton School of Finance and Commerce of the University of Pennsylvania. Its purpose was to attempt to integrate the significant findings of the Labor Relations Council on this subject.

As established a year and a half earlier, the Labor Relations Council consisted of Dr. George W. Taylor, chairman, and seven members of the Wharton School's staff.[1] In conformity with the council's goal of promoting basic research in industrial relations, it was decided to concentrate the existing research resources upon industry-wide collective bargaining. A number of monographs in this field were planned and discussed in a series of meetings with the council's industry associates who are connected with a number of leading industrial concerns in the Philadelphia area.

At the May meeting, a general exposition by management and labor representatives and by Dr. Taylor on national collective bargaining and their views as to its significance was followed by three

[1] John Perry Horlacher, secretary, C. Canby Balderston, Dean of the Wharton School; Robert P. Brecht; Waldo E. Fisher; C. Arthur Kulp; William N. Loucks; and Hiram Davis.

oup sessions. These dealt with (1) the economic pects of industry-wide collective bargaining, (2) e legal aspects, and (3) multiple-employer bar- ining in action. Dr. Edwin E. Witte, of the niversity of Wisconsin, outlined the existing rgaining practices and their economic implica- ons; his address formed a background for much the subsequent discussion dealing with the conomic aspects of such bargaining.

Dr. Witte referred to the loose use of the term industry-wide" collective bargaining. In a teral sense, the closest approximation to bar- ining on this basis is that in coal mining. Even this industry, he said, the last wage settlement as negotiated with the southern bituminous erators separately from the operators in other gions. If bargaining covering 100 percent of an dustry had been the subject of the conference, here would have been little to discuss. Many of he problems associated with industry-wide bar- aining are also evident in "multi-employer" argaining, to which the speaker directed his ttention. The latter may be industry-wide in cope or nearly so.

esult of Multi-Employer Bargaining

A Bureau of Labor Statistics study was cited howing that over 4 million workers were covered y agreements negotiated with associations or roups of employers in 1947.[2] Reference was also ade to the instances of multi-employer bar- aining that are as old as collective bargaining self and to the fact that the impetus for such argaining has sometimes been from the unions nd at other times from employers.

Multi-employer bargaining has not had uniform esults, Dr. Witte agreed with Dr. Taylor who had poken earlier. In periods of shortages, the effects f standardized wage rates under extensive multi- mployer bargaining would differ from those in eriods of surpluses. Generalizations are difficult nd extended research is required in order to rovide much more knowledge of the processes nd operation of multi-employer bargaining in the arying stiuations under which it functions.

However, the speaker added, it is reasonably lear that multi-employer collective bargaining as proven to be advantageous to employers and employees alike. Few instances exist in which either side has tried to discontinue such arrangements or refused to continue them once they were established. The advantages of the system result from the increased stability it tends to produce in a local, regional, or national labor market. Small employers are strengthened and protected "against unreasonable union demands."

The foregoing advantages are probably largely nonexistent when little competition exists either in a particular industry or at a given time. Advantages are slight to the large dominant corporations which are in a position to act independently to bring about the desired conditions. Multi-employer bargaining also involves the loss of some individual freedom on the part of the employer.

However, the chief attacks upon industry-wide bargaining center in the claimed disadvantages to the public on the grounds of being monopolistic and of leading to the exploitation of the consumers. Of this, Dr. Witte stated, little evidence had appeared up to the time of his address. High postwar prices have characterized industries in which multi-employer bargaining is or is not the practice, in which the bargaining is on a plant or company basis, and in unorganized industries. The test as to whether multi-employer bargaining produces higher prices may develop "when prices become more responsive to costs as supplies increase and purchasers become more price-conscious."

The Public Interest

Public interest is much broader than the lowest possible consumer prices, and, since the purpose of all economic activity is human welfare, low prices at the expense of wages are undesirable. Moreover, the speaker pointed out that in a free and progressive economy living standards should rise steadily.

He had observed little evidence of collusive agreements between employers and unions and mentioned the existence of the Sherman Anti-Trust Act to take care of such cases. Market-wide bargaining may increase the hazard of great crippling strikes but this does not necessarily mean that such bargaining should be prohibited by law or condemned by those seeking improved labor-management relations. As between union-wide, national-wage-pattern, and multi-employer bargaining, the speaker favored the latter alterna-

[2] For the results of this study, see Monthly Labor Review, issue of March 947 (p. 397) and Bulletin No. 897, Collective Bargaining with Associations nd Groups of Employees, Washington, 1947.

tive. Multi-employer bargaining is not feasible or desirable in all industries and at all times, but to legislate against it in the existing state of knowledge would be most hazardous: "I see no need for such a further extension of governmental interference and regulation in labor-management relations." For the present, the wisest policy is for the government to keep "hands off," neither prohibiting nor promoting multi-employer collective bargaining.

Unanimity of Economists' Opinions

In the other economic papers delivered following that by Dr. Witte, speakers were also careful to define their terms, to enumerate the dangers of disturbing the wage structure, to discuss collusive action by management and labor, to examine large-scale work stoppages, and to consider questions of regulation. They cited studies of industry-wide bargaining and appeared unanimous in their findings that the effects of such collective bargaining had not been injurious. In rounding up the discussion, Dr. Frank C. Pierson of Swarthmore College stated that the chief evidence of "collusion" was between the economists who were outstandingly unified in their views.

Coverage of Check-Off Under Taft-Hartley Act

LIMITS ON THE CHECK-OFF under section 302 (c) (4) of the Labor Management Relations Act of 1947 were the subject of opinions given by the Assistant Solicitor General on May 13, 1948, in response to two questions submitted by the Solicitor of the United States Department of Labor.[1]

The first question was one of definition, namely as to whether the permission to check-off "membership dues" under the act includes initiation fees and assessments as well as regular periodic dues. Such payments continue to be regarded as a part of membership dues, the Assistant Solicitor General held. He stated such a view had been furnished in a memorandum to the Attorney General dated July 10, 1947, in answer to an identical question presented to the Criminal Division of the Department of Justice as a result of the National Bituminous Coal Wage Agreement of 1947. In that agreement, a provision had been included for the check-off of membership dues, including initiation fees and assessments of the United Mine Workers of America.

Duration of the check-off authorization in collective agreements was the second issue. Under the labor-management relations legislation a written check-off authorization signed by an employee is irrevocable for 1 year. (In the language of the law it "shall not be irrevocable for a period of more than 1 year, or beyond the termination date of the applicable collective agreement, whichever occurs sooner.") However, the contract regarding which the Department of Labor requested an opinion contained an additional proviso that the authorization "shall be automatically renewed," at the end of each successive year, provided that the employee does not give written notice of revocation to the employer.

On the latter provision, the Assistant Solicitor General stated that judicial interpretation would be necessary to determine whether a violation of section 302 (c) (4) existed. He added that even with the automatic renewal provision, the proposed form of authorization does not appear to be "irrevocable for a period of more than 1 year." Therefore, the check-off authorization proposal did not appear to constitute a willful violation of the law's provisions, and such a case should not be considered as an adequate basis for prosecution.

[1] Data are from U. S. Department of Labor release, S 48-1235.

Conciliation Service Arbitration Functions and Facilities

VOLUNTARY ARBITRATION is regarded by the Federal Mediation and Conciliation Service as a supplement to the free system of collective bargaining, which is the crux of the national policy for conduct of labor-management relations. In the view of the Service, the parties to a labor dispute must take broad responsibility for the success of the arbitration procedure. The primary purpose of the Service is to furnish impartial assistance to the parties in their selection of an arbitrator

It proceeds in accordance with long-continued administrative practice of its predecessor, the Conciliation Service of the Department of Labor, and with provisions of law, notably section 201 of the Labor Management Relations Act. If a dispute cannot be settled by agreement, it is desirable that a single arbitrator should be chosen by the two parties jointly, and authorized to make a binding decision. To facilitate such action, the Service has issued a statement describing its arbitration functions and facilities.[1]

If requested to do so, the Service submits the names of qualified arbitrators believed to be acceptable to the parties in a dispute and suggests that they agree upon the choice of one. If agreement cannot be reached the Service, on request, either appoints an arbitrator or makes a selection by a method in accordance with the wishes of the parties. The terms of the Labor Management Relations Act placing certain interstate commerce limitations upon the Service's jurisdiction do not apply to its arbitration functions.

Selection or appointment of arbitrators by the Service or from its lists does not create any legal relation between the arbitrators and the agency. Arbitrators operate under authority granted by the disputants, and are paid by them. However, the arbitrators are requested by the Service to conform to certain generally accepted basic ethical standards and to furnish copies of their awards and reports to the Service. For purposes of general information and efficiency, the Service also requests reports on arbitrators' fees under its basic schedule.

As previously stated, requests for arbitrators must be jointly made or must have the joint support of the parties to a dispute. If a request is sent to the Service by one party, the other must signify promptly that he is willing to arbitrate and will abide by the award. The request for arbitration should state the issues in order to facilitate the work of the Service in suggesting persons best qualified to handle them. A copy of the collective bargaining agreement, or stipulation, which embodies the parties' agreement to arbitrate, should be attached to the request for arbitration.

As a general policy, the names of five qualified persons are submitted to the parties seeking an arbitrator. In unusual situations, a second list is submitted to the parties; or an arbitrator is either appointed or selected by a method in accordance with the disputants' preferences, to prevent a difference regarding identity of the arbitrator which might further complicate the dispute.

Once the arbitrator is agreed upon, the parties advise the Service, which in turn informs the arbitrator of his selection. The arbitrator then arranges with the parties the date of hearing and discusses fees and expenses. (The latter procedure is the same for an arbitrator appointed by the Service.)

The Federal Mediation and Conciliation Service, unlike the United States Conciliation Service, has not continued to maintain the "approved lists" of arbitrators. Instead, an extensive file of qualified arbitrators is kept current, from which the Service aims to submit a list of five acceptable names on each request. In its endeavor to assure that each individual is acceptable to both parties, it must exercise discretion to refrain from nominating a person who, even for insufficient reasons, is unacceptable to one or the other party.

Detailed or specific rules of behavior are not prescribed by the Service for the conduct of arbitral proceedings. Under current policy, the fee per day of the nominee or appointee may range from $50 to $100, inclusive, depending upon the difficulty of the case, the time involved, and the financial condition of each party to the dispute. In addition to his fee, the arbitrator charges for actual expenses incurred. Experience shows that equal sharing of costs by the parties yields the most satisfactory results. The parties and the arbitrator decide as to whether establishment of per diem fees shall be in advance of or after the proceedings.

Inasmuch as it has no legal relation to the arbitrator, the Service does not assume a proprietary interest in awards. Premature issuance of such awards—that is, other than as agreed upon by both parties—is discouraged. Owing to the value of a selective publication of awards, however, the Service urges those parties affected to consent to their publication as frequently as possible.

[1] Federal Mediation and Conciliation Service, release of May 17, 1948: Statement of Arbitration Functions and Facilities.

Output Per Man-Hour in French Industry, 1938–47 [1]

OUTPUT PER MAN-HOUR in French industry (excluding building and transport) in September–October 1947 was estimated to be about 83 percent [2] of the 1938 level, on the basis of indexes prepared by the Government in conjunction with the operation of the French Modernization Plan (popularly known as the Monnet Plan). Despite increases in both employment and the length of the workweek which resulted in a 20 percent rise in the estimated total number of man-hours worked during this period, industrial production did not surpass the prewar level.

TABLE 1.—*France: Output per man-hour, production, employment, and hours of work, 1938–47*

Item	1938	Dec. 1945–Jan. 1946	Dec. 1946–Jan. 1947	Sept.–Oct. 1947
	Index numbers			
Output per man-hour	100	60	77	83
Industrial production	100	60	89	100
Employment	100	93	102	106
Estimated weekly hours	100	108.5	113	113
Total man-hours	100	101	115	120
	Number of hours per week			
Scheduled workweek	39	42.4	43.8	45.0
Estimated absenteeism	1.9	3.8	4.2	3.0
Estimated vacations	1.6			2.0
Total hours at work	35.5	38.6	39.6	40.0

The drop in output per man-hour shown in table 1 was attributed to a number of causes, such as the age and neglected condition of industrial equipment; inadequate and irregular supply of needed materials and power; malnutrition among workers; lack of trained technicians; and low worker morale stemming from unstable economic and political conditions and consumers' goods shortages.

The French productivity index was computed from statistical series prepared by various governmental agencies. The output per man-hour index was obtained by dividing the index of total man-hours into that of industrial production. Total man-hour indexes represent employment indexes multiplied by the indexes of the length of the workweek. The length of the workweek was obtained by adjusting data on the scheduled workweek (the only regular series on hours of work in France) to take into account absenteeism [3] and vacations. Thus, the validity of the French productivity index depends upon the validity of the various statistical series upon which it is based.

Man-hour output, according to these estimates, improved considerably in late 1947 compared with that in the immediate postwar period when output per man-hour of work was only 60 percent of the 1938 level. Greatest increase was noted during the postwar period in the iron and steel, chemical, rubber, and textile industries (see table 2); however, prewar productivity levels had not yet been attained in any of these industries. No statement is given as to the extent to which the coverage of the industrial production index matches the coverage of the man-hour index.

TABLE 2.—*France; Indexes of output per man-hour, by industry, 1938–47*

[1938=100]

Industry groups	Dec 1945–Jan 1946 (1)	Dec 1946–Jan 1947 (2)	Sept–Oct 1947 (3)	Percent increase (1) to (3)
All groups	60	77	83	38.3
Coal mining	62	67	68	9.7
Iron and steel	51	75	89	74.5
Mechanical industry	56	75	75	33.7
Building materials	55	69	81	47.3
Chemical industry	61	85	93	52.5
Rubber	58	87	97	67.2
Paper, cardboard	52	75	83	59.6
Textiles	63	78	92	46.0
Leather and fur	52	61	65	25.0

Hours, Absenteeism, and Other Factors

The scheduled workweek in France was 15 percent longer in the fall of 1947 than in 1938 (see table 1), the 40-hour scheduled work week provided by the law of 1936 having been temporarily lengthened by decree. Overtime rates paid for work in excess of 40 hours a week encouraged longer hours of work. However, the lengthening of the scheduled workweek was partly offset by greater absenteeism and to a lesser extent by longer vacations. The relatively high level of absentee-

[1] Prepared in the Bureau's Office of Foreign Labor Conditions on the basis of a memorandum presented to the Rome Manpower Conference in January–February 1948 by the French representatives. (For a statement on the conference, see Monthly Labor Review, May 1948, p. 404.)

[2] Output per worker in agriculture was estimated by the Monnet Plan Commission to be 76 percent of the 1938 level during 1946–47; this estimate was based on employment and production indexes. No computation had been made of man-hours worked.

[3] Only two surveys of absenteeism have been conducted during the postwar period; the latest survey for May 1946 was based on returns from about 2,900 firms. Data from this source together with estimates for the intervening periods were employed in computing the total time at work.

n may be attributed not only to the longer post-r workweek in France but also to the physical fects on workers of inadequate nutrition, and to ne taken out to shop for scarce consumers' ods—especially by trips to the country for food.

oductivity and the Monnet Plan

The increased output envisaged by the Monnet an depends to a large degree on increased pro-ctivity. According to the Monnet Plan, output r man-hour in industry is expected to rise to percent of the 1938 level during 1948 and to 110 rcent of the prewar level by 1950–51 when it is ticipated that the Plan's goal will have been hieved. A somewhat greater increase—20 per-nt above the 1938 level—is planned for output r worker in agriculture by 1950–51. The tainment of these higher productivity levels is pected to be facilitated by labor training pro-rams and the modernization of equipment.

Austrian Currency Reform and Wage-Price Stabilization [1]

AFTER THE AUSTRIAN CURRENCY REFORM of December 1947, legal retail prices first continued to rise but at a much slower rate, and then declined slightly. Black-market prices declined sharply. A freer flow of finished goods to markets and an improved utilization of manpower were evident. Although wages remained unchanged, the Austrian Federation of Trade-Unions, which had strongly advocated the currency reform, maintained its policy of opposing wage increases and supporting price reductions. The currency reform was intended to contribute to wage-price stability by reducing the volume of currency in circulation. Such stabilization has been threatened by agricultural demands for sharp upward revisions in official food prices.

The Currency Reform and Its Results

In the 2 years that followed the currency conversion of December 1945—which had been designed both as a counter-inflationary measure and as a means of separating the Austrian monetary system from that of Germany—Austrian monetary circulation increased steadily.[2] The second major currency reform, effective in December 1947, had therefore been anticipated for some time. The most deflationary part of the latter reform was the exchange of schilling notes at a ratio of 3 old schillings to 1 new schilling.[3] However, each person was allowed to exchange as much as 150 schillings at a 1 to 1 ratio; farmers were also entitled to this more favorable ratio for an amount equal to the value of the crops they had delivered through legal channels since June 1947. Privately owned bank deposits were devalued by 25 percent and partially blocked for 1 year. Bank accounts which had remained blocked or restricted since the 1945 currency conversion, received the most drastic treatment; blocked accounts were written off the books entirely by the 1947 reform and restricted accounts were converted into negotiable Government bonds bearing 2 percent interest. No attempt was made to change prices or wages under the later currency reform.

Price changes in Austria, 1947 and 1948

Period	Indexes (April 1945=100) of—		Index (March 1938=100) of wholesale prices [2]
	Cost of living [1]	Viennese black-market food prices [1]	
1947: August	301.0	25.7	----
September	342.0	26.5	----
October	350.2	26.8	442.6
November	354.5	24.8	443.4
December	357.0	32.1	447.4
1948: January	359.6	15.1	449.9
February	359.7	13.1	449.5
March	367.6	13.1	449.0
April	364.3	----	----

[1] Austrian Institute for Economic Research.
[2] Austrian Central Statistical Office.

The effects of the currency reform upon the position of labor in the first quarter of 1948 may be summarized as follows:

(1) The greater scarcity of money following the reduction in note circulation and bank deposits forced raw materials and finished goods out of hoarding and contributed to the appearance of large quantities of more diversified merchandise in

[1] Prepared in the Bureau of Labor Statistics' Office of Foreign Labor Conditions, from reports of U. S. Military Government in Austria, the American Legation in Vienna, and the Austrian Institute for Economic Research.

[2] For an account of some of the factors contributing to this increase, see Monthly Labor Review, January 1948 (p. 21).

[3] The official rate of exchange has remained unaltered at 10 U. S. cents per schilling.

retail shops. However, for the same reason—scarcity of ready cash—demand for goods declined to a degree characterized by observers as a "temporary slump in internal trade" during March 1948.

(2) Legal prices of essential consumer goods, particularly those of foodstuffs, which had advanced continuously prior to the currency reform,[4] at first maintained this trend after its execution, but at a much slower rate. A small cut in bread and in lard prices was offset by advances in the prices of some other foodstuffs, partly accounted for by seasonal factors. It is, of course, too early to determine whether the decline in the cost-of-living index in April indicates a trend toward declining retail prices.

(3) In contrast to the initial rise in legal prices, black-market prices declined precipitously. This decline has been highly beneficial to labor since, according to the Chamber of Labor (as quoted by the U. S. Military Government), "a significant proportion of an Austrian family's total food expenditures goes for black-market purchases." It should, however, not be overlooked that black-market prices of foodstuffs during March were, on the whole, still nine times higher than legal prices.

(4) The official wholesale price index rose slightly in the month following the currency reform but small decreases were shown in subsequent months. Some producers' prices were reduced in the course of the winter by 2 to 15 percent in industries such as woodworking, steel, paper, glass, cement, and fertilizer. Margins for certain wholesale and retail traders were also diminished. The Government is trying to put into effect further reductions of this sort; they are valuable for labor because of their psychological effect, even if they do not exert a major influence on the cost of living.

(5) Austrian employment offices report changes in labor demand and labor supply caused, in part at least, by money shortage. After the currency reform, employers began in some cases to dismiss surplus labor and to become more exacting as to the skill and training of workers they hire. Some people who had been living wholly or partly from black-market activities started looking for regular employment. As a result, the number of job applicants registering increased at a greater than normal seasonal rate. There was, however, no widespread unemployment, and the usual labor shortages in certain industries were expected to continue, according to the U. S. Military Government.

[4] For details see Monthly Labor Review, January 1948 (p. 21).

Policy of Austrian Federation of Trade-Unions

The level of wage rates continued unchanged. The wage index of the Institute for Economic Research was 305.1 in March, the level reached following the August 1947 agreement on price and wage stabilization. The disparity between wages and legal prices which had developed under this agreement was the primary reason why the Federation of Trade-Unions strongly advocated the currency reform. This disparity, however, was not resolved by the reform and was even accentuated by the continuing increase in legal prices.

In spite of this development, of Communist pressure for wage increases, and of marked unrest among rank and file, the Federation of Trade-Unions confirmed its opposition to such increases and its support of price reductions by a majority vote at the first postwar Trade-Union Congress held in May 1948.

The Federation of Trade-Unions has had some success in securing legislation which organized labor had been urging as part of its stabilization program. A price control law, passed by the Parliament in April 1948, gave the Government broad powers in price regulation, though not as comprehensive as desired by Social Democrats and the trade-union leadership. Legislation governing the rationing and allocation of scarce commodities came into effect in March 1948. Not yet enacted were three other measures promoted by the Federation of Trade-Unions as highly important corollaries to the currency reform: a capital levy, a capital gains tax, and a credit regulation law.

The most serious threat to the Federation's policy of wage and price stabilization resulted from demands of the farming population for a radical and immediate revision of official food prices. It is generally recognized that agricultural prices in Austria have lagged behind industrial prices. The wholesale price index (1938=100) of the Austrian Statistical Office for food prices in March 1948 was 435.2, and for industrial materials

173.5. Labor's strong opposition to any increase in farm prices is based on the direct effects of such prices upon the cost of living. The Federation contends that the granting of the farmers' price demands would raise living costs by an additional 10 percent; this would necessitate a request by workers for substantial wage increases to cover the entire rise in living costs subsequent to August 1947 and would end the stabilization program. No solution has yet been found for this conflict of views.

Labor Requirements for New Construction, 1948

LABOR REQUIREMENTS for new construction projects under way (both public and private) during the second quarter of 1948 averaged 2,185,000 workers per month. This exceeds the figure for any comparable period since the third quarter of 1942, at the peak of the war construction program, when 2,887,000 workers were required. Site work claimed 9 out of every 10 persons employed on new construction projects in April, May, and June of 1948.

Because of a 31-percent rise in construction activity, as measured by the value of work put in place, the number of new construction jobs rose by almost half a million between the first and second quarters of 1948. The employment increase is equally as great when comparison is made with the second quarter of 1947.

Site labor needs for privately financed housing rose markedly—26 percent, or 144,000 workers—between the first and second quarters of 1948, and accounted for half the gain on all private site work. Jobs on private housing were provided for a monthly average of 700,000 workers in the second quarter—an advance of 47 percent over the same period in 1947.

Labor requirements for new construction [1]

[Estimated total number of workers involved in current construction activity]

Type of construction	Average monthly number of workers (in thousands)											
	1948		1947				1946				1947 [2]	1946 [3]
	2d quarter [2]	1st quarter [3]	4th quarter [3]	3d quarter [3]	2d quarter [3]	1st quarter [3]	4th quarter [3]	3d quarter [3]	2d quarter [3]	1st quarter [3]		
Total new construction (off-site and on-site) [4]	2,185	1,708	2,135	2,102	1,708	1,515	1,928	2,081	1,628	1,114	1,865	1,688
Off-site	265	217	266	246	204	194	242	254	204	144	228	211
On-site	1,920	1,491	1,869	1,856	1,504	1,321	1,686	1,827	1,424	970	1,637	1,477
Private construction	1,477	1,189	1,494	1,453	1,165	1,053	1,304	1,461	1,194	815	1,291	1,194
Residential building (nonfarm)	698	554	742	627	476	416	510	550	407	248	565	429
Nonresidential building (nonfarm) [5]	368	345	373	360	349	395	495	538	500	379	369	478
Farm construction	96	33	60	135	82	28	49	114	65	22	76	63
Public utilities	315	257	319	331	258	214	250	259	222	166	281	224
Public construction	443	302	375	403	339	268	382	366	230	155	346	283
Residential building	10	13	20	21	25	57	107	78	31	9	31	56
Nonresidential building [6]	134	112	96	77	65	47	50	55	48	55	71	52
Conservation and development	49	38	47	47	37	34	39	33	27	23	41	31
Highways	155	70	133	171	131	68	121	129	76	35	126	90
All other public [7]	95	69	79	87	81	62	65	71	48	33	77	54

[1] Previously published as employment estimates, which included data on minor building repairs. This series has been compiled and published quarterly, beginning with the second quarter of 1947. Monthly data are available from January 1939–March 1947; annual data from 1939.

These estimates are designed to measure the number of workers required to put in place the dollar volume of new construction activity reported in table F-1, p. 112. They cover the workers engaged at the site of new construction and also employees in yards, shops, and offices whose time is chargeable to new construction operations. Consequently the estimates include not only construction employees of establishments primarily engaged in new construction, but also self-employed persons, working proprietors, and employees of nonconstruction establishments who are engaged in new construction work.

In the case of all non-Federal construction, these estimates are derived by converting, into man-months of work, dollars spent on construction projects under way during each month of the quarter. The conversion is made by using a factor representing the value of work put in place per man per hour based on data from the 1939 Census of Construction and from periodic studies of a large number of individual projects of various types by the Bureau of Labor Statistics. The factor is adjusted currently in accordance with changes in prices of building materials, average hourly earnings of construction workers, and average hours worked per week. For Federal construction, estimates are made directly from reports on employment collected from contractors and then checked against estimates based on Federal expenditures.

For an estimate of total employment in establishments primarily engaged in new construction, additions, alterations, repairs and maintenance work, see table A-2, p. 73.

[2] Preliminary.

[3] Revised.

[4] Includes major additions and alterations.

[5] Includes nonresidential building by privately owned public utilities.

[6] Includes workers employed on facilities used in atomic-energy projects.

[7] Includes airports, water-supply and sewage-disposal systems, electrification projects, and miscellaneous public-service enterprises.

Highway work was mainly responsible for the 141,000 increase between the first and second quarters of 1948 in labor requirements at the site of public projects. Between the second quarter of 1947 and the same period this year, however, the 104,000 rise in site labor requirements on public projects occurred largely in nonresidential building. A fourth of the second-quarter rise in nonresidential building this year was accounted for by much greater activity in construction of facilities for atomic energy projects. Site labor needs for this work rose from 3,000 workers per month in April, May, and June of 1947 to 21,000 per month during the same period of 1948.

Labor-Management Disputes in June 1948

IN CONTRAST WITH the several preceding months, no stoppage of industry- or Nation-wide importance began in June. Although the total number of strikes in effect was as great as in immediately preceding months, the number of workers involved and the resultant idleness was lower than in March, April, or May.

Among the June labor-dispute situations were stoppages of approximately 15,000 to 20,000 building construction workers in various sections of the country. A threatened tie-up of American shipping was averted by presidential appointment of a board of inquiry under the emergency provisions of the Labor Management Relations Act and another board of inquiry assisted in the settlement of the bituminous coal mining dispute over new contract terms. The wage dispute at the Oak Ridge atomic energy plant, which had run the gamut of the emergency procedures prescribed by the Labor Management Relations Act, was settled without an interruption to production.

Coal Negotiations Yield New Contract

On June 24, operators of commercial bituminous coal mines and representatives of the United Mine Workers of America (Ind.) reached agreement on a 1-year contract to replace the one expiring July 1. The new contract provides for a wage increase of $1 per day and for doubling the operators' payment into the welfare and retirement fund—from 10 to 20 cents per ton of coal mined—which is expected to yield about $100,000,000 for the fund annually. The annual vacation payment of $100 and the so-called "willing and able" clause remained unchanged; portal-to-portal hours of work continue at 8 per day.

Steel companies operating so-called captive mines did not join in signing the contract, contending that the union-shop provision, continued from the old contract, violated the Labor Management Relations Act.

Negotiations between the operators and the UMWA, which began May 18, broke up almost immediately when the union negotiators refused to discuss their demands with the Southern Coal Producers' Association representatives, contending that since this association did not sign the current contract it could have no part in revising it. Upon complaint from the operators, the National Labor Relations Board sought and obtained from Justice T. Alan Goldsborough, of the Federal District Court in Washington, D. C., an order compelling the union to bargain collectively with the designated representatives of the operators.

Meetings on the new contract were resumed June 7. The union offered to keep the miners on the job after July 1 if the operators agreed (1) to permit pension payments from the 1947 welfare and retirement fund, as agreed upon by John L. Lewis and Senator Styles Bridges, two of the fund's three trustees, and (2) to make any changes in wages or working conditions retroactive to July 1. The operators did not agree to this proposal, however, as their trustee, Ezra Van Horn, had filed suit to contest the validity of the pension plan.

When there was little apparent progress, President Truman, on June 19, named a board of inquiry under provisions of the Labor Management Relations Act of 1947 to report on the coal contract dispute by June 23.[1]

On June 22, Justice Goldsborough handed down a decision approving payments of $100 monthly pensions to union miners 62 years old and over with 20 years of service, as previously agreed upon by two of the three trustees of the fund, and reject-

[1] Members of this board were David E. Cole of Paterson, N. J., Prof. E. Wight Blake of Yale University, and Prof. Waldo Emanuel Fisher of the University of Pennsylvania.

ng Mr. Van Horn's claim that payments should be imited to employees of companies contributing to he fund.

Negotiations then resulted in an early agreement emoving the threat of a strike July 1.

Maritime Strike Averted

A maritime strike on the Atlantic, Pacific, and Gulf coasts was threatened upon the expiration of contracts covering members of six unions—four CIO affiliates, one AFL affiliate, and one independent—on June 15. Higher wages and the retention of union hiring halls which supply seagoing personnel and waterfront longshoremen were the principal issues. The employers contended that the hiring hall represented a form of closed shop forbidden by the Labor Management Relations Act.

To investigate the facts at issue, President Truman created a board of inquiry on June 3.[2] This board reported that, except for the anti-closed-shop provisions of the law, the parties might have succeeded in reconciling their differences without the threat of a strike. With a stoppage imminent, however, the President on June 12 asked the Attorney General to seek court action to avert the strike. Federal courts in New York, Cleveland, and San Francisco thereupon issued temporary restraining orders designed to maintain the status quo. On June 23, a new order was issued by the Federal court in New York restraining maritime workers on the East and Gulf coasts from striking for 80 days from June 14, the date of the temporary restraining order. Similar injunctions were sought to prohibit strikes in other areas. A second 10-day restraining order was issued on June 23 in San Francisco to maintain existing contract terms until a decision could be reached on the Government's petition for an 80-day injunction as was issued in New York.

[2] This board consisted of Harry Schulman of Yale University Law School, Chairman; Andrew Jackson, New York attorney; Arthur P. Allen, University of California Institute of Industrial Relations; Jesse Freidin, New York attorney, and George Chaney, San Diego labor relations consultant.

Atomic Dispute Settled [3]

An hourly wage increase of 15½ cents and improved conditions of employment were granted nearly 1,000 AFL workers at the Government's Oak Ridge, Tenn., atomic energy plant on June 13, following a dispute of several months. An injunction, issued March 19 under the provisions of the Labor Management Relations Act, had delayed threatened strike action for 80 days. The board of inquiry, appointed by President Truman on March 4, was reconvened in May and reported the dispute as still deadlocked. Toward the end of May a 36-page proposed contract, containing the company's final offer, was mailed to the workers. The terms, including an increase of 10 cents an hour, were rejected by the workers, 771 to 26, in a secret ballot conducted by the National Labor Relations Board.

The Federal Mediation and Conciliation Service subsequently arranged a meeting of the parties on June 7, the expiration date of the injunction; at the same time, the workers held themselves in readiness for a walk-out on 24 hours' notice. Four days later the injunction was dissolved but, since negotiations were in progress, no strike occurred. Finally, on June 14, a revised contract between the Atomic Trades and Labor Council (AFL) and the Carbide and Carbon Chemical Corporation was signed after negotiations, under the auspices of the Federal Mediation and Conciliation Service, had continued uninterruptedly from the morning of June 11 to 4:30 a. m. on June 13.

[3] For an earlier report on this dispute see Monthly Labor Review, April 1948 (p. 411).

Technical Note

Labor Force, Employment, and Unemployment, 1929–39: Estimating Methods [1]

ESTIMATES OF THE total labor force, employment, and unemployment in 1929–39, which were prepared by the Bureau of Labor Statistics several years ago in order to fill a gap in the official statistics, have been revised recently. These were designed for comparability with the monthly series issued by the Bureau of the Census beginning in 1940, and together these series provide a continuous set of estimates from 1929 to date.

A wide variety of estimates of labor force and unemployment had previously been prepared by private agencies and individuals. These statistics were of considerable value in informing the public about the gravity of the unemployment situation in the 1930's.

In 1945, the BLS developed and made available preliminary estimates of labor force, employment, and unemployment for the 1929–39 period, comparable with those then published by the Bureau of the Census in its Monthly Report of the Labor Force (MRLF). Subsequently, the Census Bureau published revised estimates for 1940–45, incorporating adjustments resulting from an improvement in interviewing procedure, introduced in July 1945. Corresponding adjustments have now been made in the BLS estimates.

The methods used by the BLS in developing its estimates of labor force, employment, and unemployment are discussed in the present article, and a comparison is made with earlier series.

[1] Prepared by Stanley Lebergott, formerly of the Bureau's Division of Employment and Occupational Outlook. Lester Pearlman, Sophia Cooper, Harold Wool, and other staff members cooperated in the development of the estimates. Valuable advice was also received from members of the Budget Bureau's Technical Committee on Labor Supply, Employment, and Unemployment Statistics.

Total Labor Force

To estimate the total labor force for the years between 1929 and 1940 it was necessary (a) to establish comparable Census bench-mark figures for 1930 and 1940, (b) to interpolate between these bench-mark figures and extend them back to 1929.

Estimates of the labor force in the Census week of 1940 (March 24–30) that are comparable with the current estimates of the MRLF, have recently been published by the Bureau of the Census.[2] Estimates for the comparable week of 1930, were computed after adjustment for the change in labor force definitions between the 1930 and 1940 Censuses [3] and for the effects of the improvement in interviewing procedure introduced into the MRLF in July 1945.[4] The worker rates (i. e., the percentage of the population in each age-sex group who were in the labor force) were then computed for the bench-mark periods in 1930 and 1940.[5]

The labor force estimates for 1929 and 1931–39, on an April seasonal level, were calculated by (1) interpolating linearly, between the worker rates for 1930 and 1940, and (2) applying the resultant rates to Census estimates of population by age and

[2] See: United States Bureau of the Census, Labor Force, Employment and Unemployment in the United States, 1940 to 1946, Series P-50, No. 2.

[3] The 1930 Census included as "gainful workers" seasonal workers who were not actually at work or looking for work during the Census week, as well as some retired persons and inmates of institutions, who could not have been included in the "labor force" as defined in the 1940 Census. On the other hand, the 1930 Census excluded young persons who were actually looking for work but had not yet established a gainful occupation. A revision of the 1930 estimates to allow for these and other differences appears in: United States Bureau of The Census, Estimates of Labor Force, Employment and Unemployment in the United States, 1940 and 1930 (1944).

[4] The adjustment for comparability with the revised 1940 Census estimates, as shown in Census release Series P-50, No. 2 (1946) was made by computing the ratios of the revised to unrevised 1940 Census estimates for each sex, age, and employment status group, and applying these ratios to the corresponding groups in 1930.

[5] Although in the present instance worker rates for age-sex groups were used, calculations might also have been made to allow for the effects of the changing racial composition of the population. Tests indicated, however, that such a refinement would produce no significant change in the final estimate.

x for each year.[6] The labor force estimates for 29–39 were then adjusted to an annual average sis by use of a seasonal adjustment factor de- ved from the month-to-month movement shown the MRLF since 1940.[7]

In table 1, a sharp contrast is apparent between e gradual increase in the labor force shown for e years 1929–39 and the marked fluctuations ported since 1940 by the Bureau of the Census. his reflects in part the unprecedented expansion the labor force under wartime pressures and the bsequent contraction. In part, however, it ises because the full extent of variations in the bor force cannot be determined precisely for ose years prior to 1940 when no direct enumera- ons of the labor force were made.

TABLE 1.—*Total labor force, classified by employment status, 1929–1947* [1]

[Annual averages, in thousands]

Year	Total labor force [2]	Armed forces [3]	Civilian labor force				
			Total	Employed			Unemployed
				Total	Agricultural	Nonagricultural	
29	49,440	260	49,180	47,630	10,450	37,180	1,550
30	50,080	260	49,820	45,480	10,340	35,140	4,340
31	50,680	260	50,420	42,400	10,290	32,110	8,020
32	51,250	250	51,000	38,940	10,170	28,770	12,060
33	51,840	250	51,590	38,760	10,090	28,670	12,830
34	52,490	260	52,230	40,890	9,900	30,990	11,340
35	53,140	270	52,870	42,260	10,110	32,150	10,610
36	53,740	300	53,440	44,410	10,000	34,410	9,030
37	54,320	320	54,000	46,300	9,820	36,480	7,700
38	54,950	340	54,610	44,220	9,690	34,530	10,390
39	55,600	370	55,230	45,750	9,610	36,140	9,480
40	56,180	540	55,640	47,520	9,540	37,980	8,120
41	57,530	1,620	55,910	50,350	9,100	41,250	5,560
42	60,380	3,970	56,410	53,750	9,250	44,500	2,660
43	64,560	9,020	55,540	54,470	9,080	45,390	1,070
44	66,040	11,410	54,630	53,960	8,950	45,010	670
45	65,290	11,430	53,860	52,820	8,580	44,240	1,040
46	60,970	3,450	57,520	55,250	8,320	46,930	2,270
47	61,760	1,590	60,170	58,030	8,260	49,770	2,140

[1] Estimates for the period 1929–39 were prepared by the Bureau of Labor Statistics. Estimates for the period 1940–47 were adapted from U. S. Bureau of the Census, Labor Force Bulletin, Series P–50, No. 2.

[2] Total labor force includes civilian labor force and the armed forces. The estimates of total labor force and of the armed forces were adjusted upward to include about 150,000 members of the armed forces stationed outside the continental United States in March 1940, and who were not enumerated in the Census of that date. The Census Bureau reduces its current estimates of the total labor force by this number in order to maintain comparability with the 1940 Census.

[6] Population estimates used were Census estimates of the population for July 1, of each year, as published in Census release Series P–45, No. 5.

[7] A final adjustment was made to include within the total labor force members of the armed forces stationed outside of the continental United States and who were, therefore, not in the Census base figures for either 1930 or 1940. There were about 150,000 members of the armed services stationed outside of the continental United States in March 1940 and about 130,000 in 1930.

Armed Forces

Estimates of the net strength of the armed forces prior to 1940 were obtained by the BLS directly from the armed services. The estimates as shown (in table 1) differ slightly from those used in the MRLF beginning in 1940. The Census Bureau currently excludes from its estimate of the total labor force about 150,000 members of the armed forces who were stationed outside of the continental United States in March 1940 and who were therefore not enumerated in the Census of that date. This group is, however, included in the BLS estimates.

Employment

The estimates of total employment represent the sum of: (1) nonagricultural employees (i. e., wage and salary workers), (2) nonagricultural self-employed, unpaid family workers, and domestic service workers, and (3) agricultural employment.

Estimates of nonagricultural employees were based on the movement of the recently revised BLS series of employees in nonagricultural establishments.[8] This series was adjusted to the bench-mark totals of nonagricultural employees in 1930 and 1940, as estimated from the Census data.[9]

The estimates of the nonagricultural self-employed were developed for the present series. The general procedure was to develop ratios of self-employed persons per employee separately for each industry group and each year. These were then applied to the corresponding estimates of employees. For those years between 1929 and 1939 when Censuses of Manufactures, Business, and Construction were available, the ratios were computed from the Census data. For intercensal years, the ratios were computed on the basis of the relationship between (1) the ratios for Census years and (2) the number of employees

[8] This series was presented in the Monthly Labor Review for December 1947 (p. 647).

[9] Bench mark estimates of nonagricultural employees for April 1930 that were comparable with the current MRLF estimates were prepared in cooperation with the Bureau of the Census. These were then adjusted to annual average levels on the basis of monthly employment data of the BLS. Estimates for 1940 were based on the revised Census data published in Census release P–50, No. 2, and on unpublished Census estimates.

in the appropriate industry group for the same year.[10]

Agricultural employment (including family and hired workers) was estimated on the basis of the movement of the series of the Bureau of Agricultural Economics, and adjusted to annual average employment in 1930 and 1940, by the use of Census data.[11]

Unemployment

Unemployment estimates may be computed (1) by direct enumeration of the unemployed, or (2) by deducting the total of those actually employed from the total available for work (the labor force). The method of direct enumeration is currently utilized in the sample surveys of the MRLF. It was also employed in the Population Censuses of 1930 and 1940. But for those years in which no national enumerations were made, including 1929 and 1931–39, it was necessary to use the second method, and to estimate unemployment by subtracting total employment from the total labor force.[12]

As shown in table 2 the present unemployment series differs from previous estimates of unemployment for 1929–39, although the general pattern is not far different.[13] All of the series cited, for example, show the steep rise in unemployment from a prosperity low in 1929, to peak levels in 1932 or 1933. After 1933, the movements of the respective series were also generally similar. However, a more detailed examination reveals significant differences in level, as well as in year-to-year movement.

TABLE 2.—*Selected estimates of unemployment in the United States 1929–39*

[In thousands]

Year	Bureau of Labor Statistics	Alexander Hamilton Institute	American Federation of Labor	Congress of Industrial Organizations	National Industrial Conference Board	Robert Nathan
1929	1,550	3,456	1,864	1,831	429	1,7
1930	4,340	6,929	4,735	4,710	2,896	4,6
1931	8,020	10,939	8,568	8,322	7,037	8,1
1932	12,060	14,728	12,870	12,120	11,385	11,6
1933	12,830	14,394	13,271	12,643	11,842	11,9
1934	11,340	12,419	11,424	10,845	9,761	9,9
1935	10,610	11,629	10,652	10,050	9,092	9,1
1936	9,030	10,008	9,395	8,756	7,386	7,7
1937	7,700	8,366	8,282	8,109	6,403	6,8
1938	10,390	11,934	10,836	11,030	9,796	9,9
1939	9,480	10,696	9,979	10,813	8,786	9,5

Sources of the nongovernmental estimates: Alexander Hamilton Institute: correspondence with the institute. American Federation of Labor: American Federationist, August 1941 (p. 25). Congress of Industrial Organizations: unpublished figures of March 1941. Robert Nathan: Social Security Bulletin, January 1940 and subsequent dates. National Industrial Conference Board: Economic Almanac for 1948, (pp. 269, 270).

There are five major reasons for the differences shown between the BLS series and earlier estimates.

(1) The population data utilized in previous estimates were in general less accurate than the official Bureau of the Census estimates employed in the present computations. The latter were based on data not available until recent years.

(2) In previous unemployment series, the estimate of the labor force was made in terms of the 1930 Census concept of "gainful workers"—a concept which is not comparable to that used in the 1940 Census and in the MRLF. Furthermore, certain of the previous estimates made inadequate allowance for the fact that the number of workers relative to the population does not remain constant. Sufficient adjustment was not made for the effects of changes that occurred in the age composition of the population, in school attendance, and other factors, as revealed by a comparison of the 1940 worker rates with those for 1930 and earlier Census years.

(3) All the earlier unemployment series relied primarily on BLS data for estimating nonagricultural employment, but, necessarily, none of them could take account of the 1946 revisions in the BLS estimates.

[10] This procedure is illustrated by the method of estimating the number of self-employed persons in retail trade. The number of employees per proprietor in retail trade was determined for Census years from the censuses of retail trade. These ratios ranged from a low of 2.367 in the depression year of 1933 to a high of 2.988 in 1929, with intermediate values for 1935 and 1939. The ratio changed with the general level of retail trade. It was thus possible to compute regression coefficients from which estimates of the ratios for the intervening years were derived. By dividing these ratios of employees per proprietor into the total number of employees, estimates were obtained of the movement of self-employed in retail trade over the period. This "movement series" was then adjusted to the bench-mark total of self-employed and own-account workers derived from the 1940 Census (after adjustment to the revised MRLF level) to yield the estimates of total self-employed in retail trade in 1929–39.

[11] For the Census week of 1930 a separate estimate of agricultural employment was prepared comparable in concept with that of the 1940 Census. This figure was then adjusted to an annual average level on the basis of the monthly data of the BAE, after allowing for differences in seasonal movement between the latter series and that of the MRLF for years since 1940.

[12] The results of the Census of Partial Employment, Unemployment, and Occupations in 1937 could not be used for the present estimates because the methods used in this Census were not comparable with those used in 1930 and 1940, and because the female worker rates shown in the 1937 Census appeared inconsistent with those shown in all other available data.

[13] Among the series on unemployment which were examined for this period were those of the Alexander Hamilton Institute, the American Federation of Labor, Daniel Carson, the Cleveland Trust Co., the Congress of Industrial Organizations, Corrington Gill, Theodore Kreps, the Labor Research Association, Robert Nathan, the National Industrial Conference Board, and the National Research League. Estimates for individual dates, including those in the Census of Unemployment for 1937, the National Health Survey for 1935–36, the New York Sun and the Dorothy Thompson-Arthur Krock estimates for 1940, were likewise reviewed.

(4) In many earlier series the number of self-employed in nonagricultural pursuits was estimated, by and large, on the assumption that the self-employed varied in direct proportion with the number of employees. Other estimators have treated the entire group or large segments of it as a constant. Industrial censuses show that neither procedure is satisfactory. When business conditions improve, additional employees tend to be hired at a faster rate than the rate of increase in the number of businesses; the pattern is reversed when conditions worsen. As a result, the ratio of employees to proprietors in all important industry groups changed continually during the 1930's.

(5) The basic unemployment bench mark for previous estimates was necessarily the unadjusted results of the 1930 Population Census. In making its present estimates, the BLS had the advantage of both revised 1930 data and materials from the 1940 Population Census.

Evaluation of Series

The estimates of labor force, employment, and unemployment presented in this article are based on a detailed consideration of all available materials, including recent major revisions in Census and BLS data. However, any labor force and unemployment series which does not rest on a direct and continuous enumeration is subject to certain defects.

One such shortcoming—which attaches to any estimates for the years prior to the development of the MRLF—is the fact that even slight errors in the estimation of employment or labor force may produce relatively great errors in the estimates of unemployment. Another is the difficulty of making satisfactory adjustment for changes in worker rates which arise from changing economic conditions. For example, the participation of women in the labor market during the depths of the depression may have been greater than is apparent from the 1930 and 1940 enumerations. When the head of the household was out of work during the 1930's, it was not infrequent that the housewife in the family would seek a job. On the other hand, some young persons remained in school longer than they would have in more prosperous years. The net effect of these omissions and additions cannot be measured but it is probably not enough to change materially either the level or trend of unemployment for the years 1929–39.[14]

The present unemployment series is primarily a measure of total unemployment of those persons who were customarily in the labor force in terms of the trends shown by the 1930 and 1940 population censuses. It does not measure the extent to which the Nation's manpower was not fully utilized during the depression. Many persons were employed at part-time jobs. Still others were subject to what has been called disguised unemployment, since they worked at jobs well below their capacities, and could not provide society with the optimum use of their services.

Moreover, the labor potential of the population is greater than that indicated by adding unemployment to employment. As the war well demonstrated, many persons not usually in the labor force take jobs in times of emergency. Such qualifications as these must be continually borne in mind in using the labor force and unemployment estimates.

[14] This conclusion is based on a special study of changing worker rates during the 1930's.

Recent Decisions of Interest to Labor [1]

Wages and Hours [2]

Overtime Pay on Government Contracts. The United States Supreme Court [3] refused to render a decision which would have affected the coverage of many employees under the Fair Labor Standards Act because the issues of fact were complicated and the findings of the lower court were not sufficiently comprehensive. Suit to recover overtime pay was brought by employees working in a Government-owned plant in which a contractor produced munitions of war under a cost-plus-fixed-fee contract with the War Department. The contractor claimed that (1) the employees were outside the scope of the act, because they were employed by the United States Government; (2) production of munitions of war for use by the armed forces could not be considered "commerce" or "production of goods for commerce"; and (3) such products were not "goods" within the meaning of the act, since the employees worked on the products after delivery to the "ultimate consumer." These allegations were based on the construction of the provisions of 22 contracts between the contractor and the War Department. The employees, in turn, produced proof, to show that they were employees of the contractor and not of the Government.

The district court gave summary judgment dismissing the suit without a trial, on the ground that the employees were not covered by the Fair Labor Standards Act. The Fifth Circuit Court of Appeals in affirming the judgment of the district court, held that the act of July 2, 1940 (54 Stat. 712) providing for Government-owned, contractor-operated munitions plants, and requiring certain overtime payments for laborers and mechanics employed by the War Department, precluded operation of the Fair Labor Standards Act in this field. This holding was based on the language of the statute. Evidence supporting this view was offered for the first time in the company's reply brief in the Supreme Court as matter which the Court could judicially notice.

In ordering the judgment vacated and a trial to be held, the Supreme Court pointed out that the coverage of employees under a great many war contracts would be affected by its decision, and that the cost of the war to the Federal Government might be greatly increased, owing to its ultimate liability on such cost-plus-fixed-fee contracts. With such important issues at stake, the Court stated, "no conclusion in such a case should prudently be rested on an indefinite factual foundation." The district court had not selected the relevant provisions of the contracts or statutes, it pointed out, nor ascertained their meaning in sufficient detail or determined how they were construed in actual practice to form a solid basis for decision of the ultimate questions. While not denying the lower court's power to grant summary judgments, the Court considered it "the part of good judicial administration" to withhold decision in such an important case until the record presented more comprehensive findings of fact.

First Processing of Seasonal Fruit. Two decisions dealt with the question whether the exemption from overtime provisions under section 7 (c) of the Fair Labor Standards Act, employees engaged in the first processing of perishable or seasonal fresh fruit was applicable to operations performed in making apple pomace.

In one case,[4] the employer obtained, principally from neighboring dehydrating plants, parts of fresh apples, including peelings and cores, and a less quantity of whole fresh undersized apples known as culls. The peelings, cores, and culls were brought together by conveyors, ground into an indistinguishable mass, and conveyed to a mechanical press, where juice was extracted from

[1] Prepared in the Office of the Solicitor, U. S. Department of Labor. The cases covered in this article represent a selection of the significant decisions believed to be of special interest. No attempt has been made to reflect all recent judicial and administrative developments in the field of labor law or to indicate the effect of particular decisions in jurisdictions in which contrary results may be reached, based upon local statutory provisions, the existence of local precedents, or a different approach by the courts to the issue presented.

[2] This section is intended merely as a digest of some recent decisions involving the Fair Labor Standards Act and the Portal-to-Portal Act. It is not to be construed and may not be relied upon as an interpretation of those Acts by the Administrator of the Wage and Hour Division or any agency of the Department of Labor.

[3] *Kennedy* v. *Silas Mason Company* (U. S. Sup. Ct., May 17, 1948).

[4] *McComb* v. *Hunt Foods, Inc.* (U. S. C. C. A. 9, Apr. 14, 1948).

e pulp. The pulp was reground and then dried, cked, and stored.

The court, in holding such employees exempt, nied the contention that apples, cores, and peels, er cutting up and peeling, were no longer fresh its. It held that, although pomace manufac- re consisted of several successive operations, the erations were integrated and continuous and nstituted only one processing, and that the its would be perishable until all the operations re completed. The court expressed the opinion at, in granting the agricultural processing ex- nption, the logical purpose of Congress would be feated if it were held not to apply to the con- nuous operations of converting the fruit into a nperishable product.

A dissenting opinion pointed out that to include l the operations involved within the term "first ocessing" would render the word "first" mean- gless and other terms in the exemption super- ous. It concluded that the coring and peeling the apples by the dehydrators constituted the rst processing, and that the operations performed by the company were a second processing and hould not be included in the exemption.

The same result was reached by another circuit ourt of appeals in a case [5] involving similar facts, except that the sorting, peeling, and coring of the pples was done in the same plant as the grinding, ehydrating, and extracting of juice.

Irrigation Not Agriculture. A circuit court of appeals ruled [6] that employees of a mutual irrigation ompany were covered by the Fair Labor Standards Act. The company, a nonprofit corporation, eceived practically all its income from annual ssessment of its shareholders who were farmers. ach farmer was entitled to a proportion of the ater distributed, in accordance with his share- olding. The company operated over 300 miles canals and irrigated 100,000 acres of farm lands, n which were grown agricultural commodities hich were later processed and shipped in substan- al quantities out of the State. The employees, anging in number from 6 to 26, tended reservoirs, aintained canals, diverted water from streams, ored it, released it from the reservoirs, and con- ucted it to the farmers' laterals.

Holding that the employees' activities were necessary to produce goods for commerce, the court pointed out that irrigation was necessary for production of the crops, thus, the employees' work was vital and essential to the integrated effort to bring about movement of the finished products in commerce. The court ruled that the agricultural exemption did not apply to employees of a corporation which, however it might be looked upon by local law, was an entity separate from its farmer-members. The company's employees were not construed to be engaged in any of the operations listed under the definition of agriculture in section 3 (f), such as cultivation and tillage of the soil, dairying, cultivating, growing, or harvesting of agricultural or horticultural commodities. The court held their activities separate and distinct from the farmer-members' farming operations, and concluded that they were not engaged in agriculture within the intent and meaning of section 13 (a) (6) of the act.

A dissenting opinion contended that the irrigation company was not really a separate entity, but was merely a mutual agency for the farmers; that irrigation was as much a part of agriculture as plowing or fertilizing; and that the employees of the company were engaged in practices "performed by a farmer * * * as an incident to or in conjunction with farming operations" under the definition of agriculture in section 3 (f).

Labor Relations

Employer Unfair Labor Practices. Several decisions of the courts and of the National Labor Relations Board dealt with union charges of employer unfair labor practices. A United States circuit court held [7] that an employer who granted a wage increase without consulting the union had not committed the unfair labor practice of refusal to bargain, if it was clear that (1) negotiations had already broken down, (2) the union had taken a strike vote, and (3) the wage raise was granted to meet competition by other mills in that area, and not to bypass the union.

The Board ruled [8] that letters and notices sent by an employer to his employees prior to a representation election were permitted under the Taft-Hartley Act, since they contained neither threat of

[5] *McComb* v. *Musselman Co.* (U. S. C. C. A. 3, Apr. 20, 1948).
[6] *McComb* v. *Farmers' Reservoir and Irrigation Co.* (U. S C. C. A. 10, Apr. 23, 1948).
[7] *National Labor Relations Board* v. *Crompton-Highland Mills* (U. S. C. C. A. (5th), May 5, 1948).
[8] *In re Wrought Iron Range Co.* (77 NLRB No. 85, May 7, 1948).

force or reprisal nor promise of benefit. The letters and notices did state that the interests of both company and employees would be served best by a vote against the union. They were in the nature of employer campaign statements pointing out the disadvantages of unions, and emphasizing the good relations which had always existed between the employer and his employees.

In another instance,[9] the Board decided that the summary firing of the local union's leading official for mishandling equipment and thus causing a dangerous condition in the plant was not discriminatory, despite a superintendent's statement several months earlier that he was going to get rid of union leaders. The Board held that (1) the employer's conduct manifested no anti-union bias, (2) the superintendent's remarks were not related in point of time to the discharge, and (3) some of these remarks were permitted under the act since they were made in private.

In two cases, the Board dealt with allegedly coercive statements made by employers. The first,[10] concerned pre-election speeches by an employer to employees, on company time and premises, which the act permitted in that they contained no threat of force or reprisal or promise of benefit. The fact that the employer had, on other past occasions, acted and spoken in violation of the act, did not cause these speeches, it was held, to assume a coercive character.

In the second case[11] the Board overruled its compulsory or "captive" audience doctrine that it was an unfair labor practice for an employer to compel employees, even on company time, to attend a meeting in the plant to listen to anti-union statements. The Board, in overruling this principle, took the position that if the statements made to a "captive" audience did not contain threats of force or reprisal or promise of benefit, they were protected under the amended act; the compulsory attendance of the employees did not in itself constitute coercion in violation of the act.

Blacklist as a Secondary Boycott. A district court decision[12] concerned union activities which it had been alleged violated Taft-Hartley Act provisions prohibiting secondary boycotts. A building trades council had blacklisted the name of a contractor who was having work done by a nonunion s contractor. The contractor charged a second boycott, and the NLRB sought an injunct against use of the blacklist. The court h that placing the employer's name on the bla list was not unlawful, because the act specifica provides that an expression of views shall not an unfair labor practice if it does not cont threat of reprisal or force, or promise of a benefit. The blacklist here contained neith threat nor promise; it was simply a public sta ment by the union that a particular enterpr dealt with employers who refused to hire uni labor.

Union Security. Several cases decided recent dealt with union security. A Federal distri court[13] ruled invalid a preferential hiring clause a collective agreement under the Taft-Hartl Act, which prohibits the closed shop but permi union security under limited conditions. T clause struck down read as follows:

> When additional employees are required * * * the employer agrees to employ only members of the union in good standing, when such employees can be furnished by the union in 48 hours. When the union is unable to supply competent workmen, the employer may employ workmen from any source provided that such nonmembers so employed shall make application for membership in the union and the union agrees to admit such employees to membership if no disqualification is found.

A decision[14] by the Board, involved a discharg of an employee under a maintenance-of-membe ship agreement. The contract required membe of the union to remain members in good standin for its duration, but did not compel new employe to join. The employee involved was a uni member when he voluntarily left his job. Late the same employer, reemployed him in a ne position, while the maintenance-of-membersh agreement was still in effect. Upon his refusal t pay his dues, the union demanded his discharg and the employer complied. The Board held th discharge discriminatory because the employee return to work after having quit made him a ne employee who was not required to join the unio under the agreement. A dissenting opinion he

[9] *In re Consumer Cooperative Refinery Ass'n.* (77 NLRB No. 91, May 12, 1948).

[10] *In re Tygart Sportswear Co.* (77 NLRB No. 98, May 13, 1948).

[11] *In re Babcock & Wilcox Co.* (77 NLRB No. 96, May 13, 1948).

[12] *Sperry v. Denver Building Council* (U. S. D. C., D. of Colo., Mar. 1948).

[13] *District Lodge No. 84, I. A. M. v. Akmadzich* (U. S. D. C., S. D. of Cal May 6, 1948).

[14] *In re Idarado Mining Co.* (77 NLRB No. 64, Apr. 29, 1948).

discharge justified because the reemployment the new position implied the employee's acceptance of his previous status subject to the collective agreement; and stated that to decide as the majority would permit an employer to evade the union-security arrangement by discharging employees for a single day and then rehiring them.

The Board, in the first decision of the kind,[15] applied section 14 (b) of the amended National Labor Relations Act (the Taft-Hartley Act) which provides that "nothing in this act shall be construed as authorizing the execution or application of agreements requiring membership in a labor organization as a condition of employment in any State or Territory in which such execution or application is prohibited by State or Territorial law." The case involved a unit of employees some of whom worked in the District of Columbia and the rest in Virginia, where all forms of compulsory union membership, including the limited form of union-security arrangements permitted under the Taft-Hartley Act, are outlawed by statute. The Board held that section 14 (b) precludes union-shop elections, even when the employees are engaged in interstate commerce, in any State which prohibits the union shop, and leaves exclusive jurisdiction in matters of union-security agreements to such States. It also held a unit which includes employees whose work is performed in a State that forbids union-security agreements inappropriate for purposes of a union-shop election.

Representation Proceedings and Elections. The NLRB has dealt with questions of representation under the amended National Labor Relations Act in a series of decisions. One ruling[16] held that the provision in the amended act which prohibits inclusion of both professional and nonprofessional employees in one unit, unless a majority of the former vote for such inclusion, is inapplicable when professional employees predominate in the unit. In another decision[17] the Board ruled that a union created solely to represent plant guards and affiliated directly with the American Federation of Labor cannot be certified as representative of the guards: the amended act forbids the certification of a union of guards affiliated directly or indirectly with a labor organization admitting nonguards to membership. However, the Board has also ruled[18] that a union which is affiliated with a labor organization that represents guards is nevertheless eligible to be certified as a representative of nonguard employees, notwithstanding the provision of the amended act which prohibits the converse situation. The Board conceded that if any of the affiliated locals admitting guards should now petition for certification, then "a quite different question would arise."

The Board also held[19] that the clause in the Taft-Hartley Act which provides increased latitude in the establishment of separate craft units by giving skilled craftsmen an opportunity to indicate their preference, does not imply that unskilled employees must be given the right to express their preference for a unit which excludes skilled craftsmen. Inasmuch as the evidence indicated that both skilled and unskilled employees had related interests and were functioning in the same integrated production process, the Board concluded that they should all be in the same unit. It held that the amendments to the act did not change the basic principle that employees with related interests are to be placed in the same bargaining unit.

In another case,[20] a representation election was held in August 1947, but the Board dismissed the proceeding because the union had not complied with the filing and non-Communist affidavit requirements of the amended act. Less than a year later, another union filed a petition for certification. The noncomplying union intervened and contended that no election could be held, because less than a year had elapsed since the last previous election. The Board overruled this contention, pointing out that the amended act prohibited the holding of another election within a year after a valid election. It stated that the election of August 1947 was not a valid election, but rather was part of an incomplete investigation.

Two cases dealing with interference by the employer with representation elections resulted in Board decisions invalidating the elections. In the first,[21] the employer made pre-election anti-

[15] *In re Giant Food Shopping Center* (77 NLRB ——, May —, 1948).
[16] *In re Continental Motors Corp.* (77 NLRB No. 50, Apr. 26, 1948).
[17] *In re Schenley Distilleries, Inc.* (77 NLRB No. 80, May 5, 1948).
[18] *In re E. R. Squibb & Sons* (77 NLRB No. 14, Apr. 13, 1948).
[19] *In re Engineering Research Associates, Inc.* (77 NLRB No. 24, Apr. 20, 1948).
[20] *In re Nashville Corp.*, (77 NLRB No. 19, Apr. 16, 1948).
[21] *In re General Shoe Corp.* (77 NLRB No. 18, Apr. 16, 1948).

union statements to his employees, in letters, pamphlets, and speeches. Such action, the Board pointed out, would have been an unfair labor practice under the old act, but was permissible under the amended act as no threat of force or reprisal or promise of benefit was included. However, the Board held that such conduct by the employer on the day before the election created an atmosphere which made improbable a free choice by the employees, and that this, though not an unfair labor practice, was sufficient ground for invalidating the election. The conduct thus condemned consisted of (1) the employer's summoning to his own office, in groups of 25, all his employees, and reading to each group a violent anti-union statement; and (2) of instructions by the employer to his foremen to propagandize the employees in their own homes. A dissenting opinion held that inasmuch as the employer's conduct was of a character specificially protected by the amended act (as the majority concedes), no justification existed for setting aside this election. In the other case,[22] the Board set aside an election on the ground that although 23 of the 29 employees involved requested the election, failure to vote on the part of all 29 resulted from the employer's action. It was stated that he so changed the working hours on the day of the election that the workers could vote only at considerable personal inconvenience and loss of their own time.

In a final case [23] involving representation, the employer petitioned the Board for a certification election as the amended act permits. During the hearing which precedes an election, the union which for several years had been recognized by the employer disavowed any claim to represent a majority. The Board thereupon dismissed the employer's petition, holding that such disavowal by the union eliminates the question of representation and makes an election superfluous. A dissenting opinion took the position that the majority decision emasculated the employer's right to petition for an election, and that it gave a union the power to veto such right by simply withdrawing its claim to recognition if it felt it could not win an election.

Decertification Proceedings. Two cases have recently dealt with questions arising under the provisions of the Taft-Hartley Act which permit employees to petition for decertification of unio that claim the status of exclusive bargaining age In the first of these cases,[24] the Board dismissed petition by employees to decertify the union on ground that when the petition was filed the uni was neither certified by the Board nor recogni by the employer as the bargaining representati of the employees. The statute requires that o or the other of these conditions exist as a prere uisite to a decertification proceeding.

In the second case,[25] the Board directed a certification election against a certified uni Before the election, the union advised the Boa that it no longer claimed or wished to repres the employees involved and requested removal its name from the ballot in the pending electi Thereupon, the Board dismissed the decertifi tion petition and canceled the scheduled electi on the ground that the union's disclaimer eli nated any representation question. It was the intent of Congress in the Taft-Hartley A the Board stated, to enable an employer safely refuse collective bargaining for the period of 1 ye during which no new election could be held. dissenting opinion held that for the Board direct a decertification election, which might p clude all collective bargaining for 1 year, would consistent with the amended act's recognition the employees' right to refrain from concert action and collective bargaining.

Veterans' Reemployment

Right to Promotion on Reinstatement. Two rece decisions [26] of a Federal district court deal wi the question of whether a returning veteran entitled to be reinstated to a higher position th that which he held prior to his induction. It w claimed in each case that the veteran was qualifi for and would have attained the higher positio if he had not been inducted and had continued work for the same employer. Both cases co cerned employees of a railway which, prior to t induction of the veterans, had concluded a colle tive bargaining contract with its employees. the first, a veteran who had been yardman pri to his induction, applied on his return for the j of yardmaster. By the union agreement, senio

[22] *In re Haskell Tool K Mfg. Co.* (77 NLRB No. —, May —, 1948).
[23] *In re Ny-Lint Tool & Mfg. Co.* (77 NLRB No. 100, May 13, 1948).
[24] *In re Queen City Warehouses, Inc.* (77 NLRB No. 35, Apr. 22, 1948).
[25] *In re Federal Shipbuilding & Drydock Co.* (77 NLRB No. 78, May 3, 19
[26] *Willoughby* v. *Atchison, Topeka & Sante Fe Ry. Co.* (U. S. D. C. Ka Mar. 26, 1948; *Eaton* v. *Atchison, Topeka & Santa Fe Ry. Co.* (*U. S. D. Kans., Mar. 26, 1948.*)

y for yardmen was on a different register from niority for yardmasters. Yardmen who had en junior to the veteran had become yard-asters on completing their required 60 shifts as lief yardmaster. The veteran refused an offer of instatement in his old position.

In holding that the veteran was not entitled to e position of yardmaster, the court pointed out at section 8 (b) (B) of the Selective Training and ervice Act merely provides for restoration of the eteran to a position of like seniority, status, and ay, and that section 8 (c) provides that a veteran eturning from the service be treated as if he had een on furlough or leave of absence. The act, he court pointed out, did not provide that the eteran should be treated as if he had been work-g for his employer during the period of his ab-nce. The court refused to disregard the union ontract, which would have involved a ruling that he veteran's name should be placed on a seniority st on which he had never been placed prior to his duction.

In the second case, the promotion involved as that of a laborer from a lower to a higher class f position. The union contract provided for romotion, on or after resumption of work, of mployees who had been on furlough or leave of bsence. The agreement drew no distinction be-ween types of leave, and had no provision for etroactive seniority. In such an instance, the ourt held, the offer to the veteran of his previous osition met the employer's obligation.

ecisions of State Courts

alifornia—Jurisdictional Strikes. A lower Cali-ornia court held unconstitutional [27] the California tatute which outlaws jurisdictional strikes. The tatute makes unlawful "a concerted refusal to erform work for an employer * * * arising ut of a controversy between two or more labor rganizations as to which of them has or should ave the exclusive right to bargain collectively ith the employer * * * or * * * as to hich of them has or should have the exclusive ight to have its members perform work for an mployer." The court held that this statutory rovision prohibited two or more employees under the same employer from quitting work, if the rest of the employees were members of two or more disputing unions, and that employees who engaged in peaceful picketing in connection with a jurisdictional dispute would be guilty of violating the law. Such employees' acts, the court pointed out, are clearly protected by the Federal Constitution, and any attempt by the State to prohibit or restrict them is unconstitutional.

Idaho—Mass Picketing and Free Speech. A lower Idaho court held [28] that mass picketing and coercion, if engaged in by a labor union, are not protected by the constitutional guaranty of free speech. The employer alleged that the union engaged in mass picketing which prevented anyone—employee, customer, or patron—from going in or out of the employer's plant. He stated that the pickets stopped employees and patrons, and made threatening remarks "that something was going to happen and that said customers and patrons had better not enter on the employer's premises." A State law prohibiting the issuance of injunctions in labor disputes, the court ruled, was immaterial under the facts alleged by the employer, and the pickets' conduct was unlawful. The freedom-of-speech provision of the Constitution cannot be "used as a cloak for unbridled license or coercion," the court pointed out, and when peaceful picketing ceases to be used for purposes of persuasion, "it loses the protection of the constitutional guaranty of free speech, and a person or persons injured by its acts may apply to a court of equity for relief."

New York—Union Liability for Libel. A New York appellate court ruled [29] that no cause of action exists against an unincorporated labor union which has printed allegedly libelous statements in its union publication, if there is no showing that such statements were authorized or ratified by the union members. A dissenting opinion took the position that the union was liable, since the statements appeared in its official journal, published in the interest of its members by union officials under membership authorization. Hence, the opinion stated, no further or specific authorization or ratification was required in order to establish liability.

[27] *International Association of Machinists* v. *San Diego County Building and Construction Trades Council* (Calif. Superior Ct., Los Angeles County, Mar. 25, 1948).

[28] *Brunger* v. *Smith* (Idaho Dist. Ct., Ada County, Apr. 16, 1948).

[29] *Martin* v. *Curran* (N. Y. Sup. Ct., App. Div., 2d Dept., Apr. 26, 1948).

Chronology of Recent Labor Events

May 17, 1948

THE NATIONAL LABOR RELATIONS BOARD rejected a formal request of the United Steelworkers of America (CIO) to order the Inland Steel Co. to bargain on its pension plans, because the union's officers had not signed the non-Communist affidavit required under section 9 (h) of the LMRA (see Chron. items for Oct. 7, 1947, MLR, Jan. 1948; and Apr. 13, 1948, MLR, May 1948, for discussion, see p. 111 of that issue). (Source: Labor Relations Reporter, 22-LRRM, p. 1060, and CIO release, May 17, 1948.)

May 18

THE FEDERAL DISTRICT COURT at Washington, at the Attorney General's request, dismissed without penalty the civil contempt proceedings against the United Mine Workers of America and its president (see Chron. item for Apr. 20, 1948, MLR, June 1948) emanating from the recent "pension fund" soft-coal stoppage. The court took under advisement, however, the Government's additional request for dismissal of the 80-day anti-strike injunction issued on April 21. (Source: Labor Relations Reporter, 22 LRR, p. 52, and United Mine Workers Journal, June 1, 1948, p. 3.)

On May 19, the joint bituminous wage conference, called to replace the agreement expiring June 30, collapsed on the issue of admitting the Southern Coal Producers Association; whereupon the Association brought unfair labor charges against the UMWA before the NLRB. (Source: Labor Relations Reporter, 22 LRR, p. 51, and United Mine Workers Journal, May 15, 1948, p. 4; for discussion, see MLR, June 1948, p. 645.)

On May 24, the General Counsel of the NLRB applied to the Federal District Court in Washington for a temporary restraining order. (Source: Labor Relations Reporter, 22 LRR, p. 69.)

On June 4, the Federal District Court (after a "show-cause" hearing on June 2) issued a temporary injunction directing the UMWA and its president to bargain collectively with the Southern Coal Producers Association. (Source: Labor Relations Reporter, 22 LRR, p. 88.)

THE NLRB, IN A COMPLAINT by the United Stone and Allied Products Workers of America (CIO) against the Babcock & Wilcox Co., Augusta, Ga., announced its decision that the employer was within his "free speech rights" under section 8 (c) of the LMRA of 1947 in advising his employees not to join a union. No threat of reprisal or force or promise of benefit had been made. (Source: NLRB release R-84, May 18, 1948.)

May 21

THE 67-DAY country-wide strike of the United Packinghouse Workers (CIO) against the "Big Four" packers (see Chron. item for March 16, 1948, MLR, May 1948) was called off in three companies. The union accepted the 9-cent hourly wage increase it rejected in March. A Congressional committee, headed by Representative Clare Hoffman, ended a 2-day investigation on the strike, in Chicago.

On June 7, the union ended its stoppage against Wilson & Co. (Source: CIO News, May 31, 1948, and daily press; for discussion, see MLR, June 1948, p. 644.)

THE NLRB RULED 3 TO 2, in the case of Local 1501, Retail Clerks International Association (AFL), and the Giant Food Shopping Center, Inc., against holding consent elections for the union shop in States which ban it by law. (Source: NLRB release R-86, May 21, 1948.)

THE ADMINISTRATOR, Wage and Hour Division, United States Department of Labor, under the Fair Labor Standards Act of 1938, announced a minimum hourly wage of 33 cents for employees in the full-fashioned hose industry in Puerto Rico, effective on June 21. (Source: Federal Register, Vol. 13, p. 2742.)

On June 9, the Administrator announced a minimum hourly wage of 33 cents (formerly 28 cents) for the artificial flower industry of Puerto Rico, effective on July 12. (Source: Federal Register, Vol. 13, p. 3094.)

May 24

A 5-YEAR ARBITRATION AGREEMENT, barring strikes, lockouts, or boycotts was jointly announced by the International Printing Pressmen and Assistants' Union of North America (AFL) and the Union Employers' Section of the Printing Industry of America, Inc. Local arbitration is provided for, with appeal to a national arbitration board. (Source: Union Employers' Section release, May 24, 1948, and national arbitration agreement.)

May 25

THE GENERAL MOTORS CORP. and the United Automobile Workers (CIO) reached a 2-year agreement, affecting 225,000 workers, which provides an 11-cent hourly wage increase of which 3 cents constitutes an automatic "annual improvement factor" and 8 cents a cost-of-living increase. The strike called for May 28 was thereby averted. The union had asked for a 25-cent increase. (Source: CIO News, May 31, 1948, and daily press; for discussion, see p. 1 of this issue.)

On May 27, the United Electrical Workers of America (CIO) employed by GM in its electrical divisions, accepted the UAW-GM wage formula announced 2 days previously for the union's 40,000 workers. (Source: Labor Relations Reporter, 22 LRR, p. 65, and daily press.)

May 28

THE 17-DAY STRIKE of the United Automobile Workers (CIO) against the Chrysler Corp., involving 75,000 workers, was settled for a flat 13-cent hourly wage increase under a contract, effective until August 1, 1950, which provided for a general wage reopening by either party after June 15, 1949. (Source: CIO News, June 7, 1948, p. 3, and daily press; for discussion, see MLR, June 1948, p. 644.)

On May 12, the strike began, soon spreading to 16 plants in 3 States. The union had originally sought a 30-cent hourly wage increase (also 5 cents, fringe additions). (Source: CIO News, May 17, 1948, p. 3, and daily press.)

On May 17, the Circuit Court for Wayne County, Mich., issued a restraining order, at the union's request, followed by an injunction on May 21, against enforcement of the Michigan strike control law. (Source: Labor Relations Reporter, 22 LRR, p. 68.)

May 29

THE ECONOMIC COOPERATION ADMINISTRATOR announced the appointment of Bert M. Jewell, former president of the Railway Employee's Department of the AFL, and Clinton S. Golden, assistant to the president of the United Steelworkers of America (CIO) as labor advisers. (Source: Economic Cooperation Administration release, No. 46, May 29, 1948.)

On June 3, the ECA announced the appointment of Boris Shishkin, AFL economist, as chief of the labor division of the ECA's Paris office. (Source: Economic Cooperation Administration release, No. 50, June 3, 1948.)

June 1

THE UNITED STATES SUPREME COURT, in the case of *Hilton v. Sullivan et al.* held as valid under the Veterans' Preference Act of 1944, the United States Civil Service Commission regulations giving absolute employment preference ("superseniority") to veterans with permanent tenure over nonveterans (see Chron. item of May 27, 1946, MLR, Aug. 1946, p. 321), without regard to comparable lengths of service in cases of reduction in Government force. (Source: The U. S. Law Week, 16 LW, p. 4473.)

THE JOINT CONGRESSIONAL ("watch-dog") Committee on Labor-Management Relations voted unanimously in executive session to recommend that no legislation be enacted at this time to eliminate employee elections required under the LMRA of 1947 as prerequisite to the union shop. (Source: Congressional Record, June 1, 1948, p. D570; for further discussion see p. III of this issue.)

On May 24, the committee had begun 3 weeks of scheduled hearings on a 5-point program for amending the LMRA of 1947. (Source: Congressional Record, May 24, 1948, p. D531, and daily press.)

NEW JERSEY PROVIDED for a system of cash sickness benefits for workers, by amendment of its unemployment compensation law—the third State to provide disability insurance. (Source: New Jersey Laws, 1948, ch. 110.)

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June 3

AN IMPENDING STRIKE of 150,000 maritime workers and longshoremen set for June 15 was averted by appointment of a Presidential board of inquiry which reported on June 11 that the basic issue in the dispute was the anti-closed-shop provision in the LMRA of 1947. (Source: Federal Register, Vol. 13, p. 3009, Labor Relations Reporter, 10–LA, p. 449.) On June 14 temporary restraining orders, which preserved existing status of hiring methods, were issued. (Source: Labor Relations Reporter, 22 LRR, p. 105; for further discussion see p. 49 of this issue.)

On June 1, after a strike which began in mid-May, the NMU reached a 2-year agreement with 11 Great Lakes tanker companies, which retained the union hiring hall and granted a wage increase. (Source: Labor Relations Reporter, 10–LA, p. 451, and daily press.)

June 4

THE AMERICAN TELEPHONE AND TELEGRAPH CO. (Long Lines Division) and the American Union of Telephone Workers (CIO) signed a 21-month agreement, which averted a threatened strike of 25,000 employees in 42 States. The settlement provided for no general wage increases, but for fringe improvements and wage reopening at any time. The union had demanded a 30-cent hourly wage increase. (Source: Daily press and Union News Service, CIO, May 10, 1948.)

On May 18, the President, by Executive Order No. 9959, had created a board of inquiry to report on issues in the dispute. (Source: Federal Register, vol. 13, p. 2707.)

On May 24, the company announced settlements by 7 of its affiliates (in 6 States and the District of Columbia) with 13 unions (11 affiliated with Communications Workers of America (Ind.)), representing 54,000 workers. No general wage increases were granted, but provision was made for contract reopening.

On May 25, the company and long-distance employees decided to resume direct negotiations, and the Presidential board of inquiry agreed to defer its hearings until June 8. (Source: Daily press; for discussion, see MLR, June 1948, p. 645.)

June 7

THE UNITED STATES SUPREME COURT (in *Bay Ridge Operating Co.* v. *Aaron* and *Huron Stevedoring Corp.* v. *Blue*) ruled 5 to 3 that premium pay for work performed on undesirable days or at undesirable hours (i. e., nights, Sundays, holidays, et,.) was a part of the "regular rate" and, as such, did not constitute overtime under the Fair Labor Standards Act of 1938. (Source: Public Law Week, June 8, 1948, p. 4500, for further discussion, see p. IV of this issue.)

On June 11, the Wage and Hour Administrator, of the Department of Labor, in light of the Supreme Court decision, announced that enforcement of a new interpretation, originally set for July 1, was postponed to September 15, 1948. (Source: Dept. of Labor, Wages and Hour

and Public Contracts Division releases, PR–153, June 11, 1948, and PR–157, June 28, 1948.)

June 8

THE NLRB, in the case of Oil Workers Internationa Union (CIO) and its local No. 128, and Lane Wells Co. Los Angeles, held that the parent union which had met the affidavit and filing requirements of the LMRA of 1947 (see Chron. items for Oct. 7, 1947, MLR, Jan. 1948, and Apr. 13, 1948, MLR, May 1948) could not "front" for its noncomplying local at the Lane Wells plant, which had not complied with section 9 (g) and (h) of the act. (Source: NLRB release R–89, June 8, 1948.)

June 10

THE FEDERAL DISTRICT COURT at Washington extended the ban, by temporary injunction, on the threatened railroad strike on the part of the three "operating" railroad brotherhoods of engineers, firemen, and switchmen (see Chron. item of May 10, 1948, MLR, June 1948; for discussion, see p. 644), pending decision on the Government's request for a permanent injunction. (Source: Daily Labor Report, Bureau of National Affairs, No. 113, p. 3, and daily press.)

THE NLRB RULED UNANIMOUSLY that a group of plant engineers and right-of-way agents in three locals of the International Brotherhood of Electrical Workers (AFL) at the Illinois Bell Telephone Co., Chicago, were "professional employees" as defined by section 2 (12), subsection (a) (iv), of the LMRA of 1947, and ordered a decertification election to decide on severance from the plant unit or retention of representation with nonprofessionals through the IBEW (AFL). (Source: NLRB press release R–91, June 10, 1948.)

THE PRESIDENT APPROVED an act prohibiting discrimination against physically handicapped persons in appointment to classified positions in the Federal civil service. (Source: Public Law 617, 80th Cong., 2d sess.)

June 13

A SETTLEMENT WAS REACHED between the Atomic Trades and Labor Council (AFL) and the Carbide and Carbon Chemicals Corp., operators of Oak Ridge National Laboratory for the U. S. Atomic Energy Commission (see Chron. item for Mar. 19, 1948, MLR, May 1948, for further discussion, see p. 49 of this issue). (Source: President's Message to Congress, Cong. Record, June 18, 1948, p. 9091.)

June 14

CONGRESS PASSED, over the President's veto, a law which will remove over half a million persons (salesmen and others) from coverage as "employees', under the Social Security Act. The same law provides for increases in certain public assistance payments. (Source: Public Law 642, 80th Cong., 2d sess., and Cong. Record, June 14, 1948, pp. 8268, 8362.)

The President approved the Labor-Federal Security Appropriation Act, 1949, whereby $14,423,700 was appropriated for the Department of Labor. As in other major appropriation acts, the provision banning strikes against the Government and membership in subversive organizations was continued. (Source: Public Law 639, 80th Cong., 2d sess.)

Publications of Labor Interest

Special Reviews

The Union Challenge to Management Control. By Neil W. Chamberlain. New York, Harper & Brothers, 1948. 338 pp. $4.50.

The history of labor-management relations during the development of modern industrial organizations demonstrates that there is no clear line of demarcation between matters which are solely the prerogative of management and those proper for collective bargaining. "At one time or another," Professor Chamberlain states, "in one industry or another, there is scarcely a function of management which has been impervious to union penetration." The determination of the appropriate subjects for collective bargaining, and the definition of the spheres of company policy formation which are of sole concern to management, he places among the burning problems of industrial relations. His study is an analysis of these problems, examined with reference to their legal, economic, technical or technological, political, and ethical aspects.

The corporation set-up is such that it rests on final authority delegated to managerial officials who are subject to certain legal obligations and limitations. On the other hand, Federal labor policy has given legal sanction to union leaders which permits them to assume authority in the management of corporate affairs but does not place upon them the same legal restrictions and responsibilities that are imposed on corporation managers. Thus, two conflicting management authorities, with differing obligations and philosophies, have been permitted to develop side by side. As a result, labor-management negotiations often end in deadlock.

To overcome this impasse, which threatens to become more acute with the passage of time, Professor Chamberlain argues that a system of shared responsibility as well as shared authority should be developed. "It is now widely recognized that the growth of unions into bodies wielding power not incommensurate with that of our great corporations has posed organizational problems of the first magnitude. We are faced with the necessity of integrating these two groups for the benefit of society as well as for their own mutual advantage."

In his analysis, the author has used information concerning large corporations, gathered from interviews and correspondence with company and union officials.—I. R.

EDITOR'S NOTE.—Correspondence regarding the publications to which reference is made in this list should be addressed to the respective publishing agencies mentioned. Where data on prices were readily available, they have been shown with the title entries.

Labor Problems in Southeast Asia. By Virginia Thompson. New Haven, Conn., Yale University Press, 1947. 283 pp. $4.

A survey of labor conditions and labor organizations in Burma, Indonesia, Indo-China, Malaya, and Siam, under colonial development and through the Japanese occupation, with brief notes on postwar problems. The part of the world treated in the book is largely in transition, politically and economically, from its colonial status to varying degrees of national independence. The populations are for the most part engaged in primitive peasant farming. Handicrafts and much of manufacture are carried on to a large extent as part-time activities during slack agricultural periods. There is no stable industrial proletariat of considerable magnitude that depends wholly on income from manufacture. Because of the distorted development of industry under colonial conditions, the essential skills do not exist for development of manufacture geared primarily to internal consumer needs. Inherent in these problems are difficult interracial questions arising from immigration.

Under these conditions, labor organizations are not highly developed and are lacking in stability. As a result of political awakening and attempts of the countries to gain national independence, trade unions recently have become more important. In some instances, their programs are not confined to economic problems in the narrow sense, but include political aspirations and social reconstruction goals.—H. O.

Conciliation and Arbitration

An Arbitrator Speaks on the Use of Reported Awards. By Jules J. Justin. Washington, Bureau of National Affairs, Inc., [1948]. 8 pp.

Stresses the value of reported arbitration awards in contract negotiations, grievance handling, and preparing for arbitration.

Arbitration and its Possibilities and Limitations Under the Taft-Hartley Law. By Sylvan Gotshal. (*In* Arbitration Journal, New York, Vol. 2 (new series), No. 4, Winter 1947, pp. 318–327. $1.)

Discussion of the opportunities for arbitration, and of the limitations upon this method of settling disputes, under the Taft-Hartley law. The conclusion reached in the article is that Congress intended to give full scope to the democratic processes of mediation, conciliation, and voluntary arbitration in framing the legislation.

Arbitration: Proving Your Case. By Jules J. Justin. New York, American Management Association, 1948. 22 pp. (Reprinted from Personnel, November 1947 and January 1948.)

Deals with procedures for preparing and presenting arbitration cases.

Federal Mediation and Conciliation Service—Statement of Arbitration Functions and Facilities. Washington, Federal Mediation and Conciliation Service, May 17, 1948. 6 pp.; processed. Free.

Summarized in this issue of the Monthly Labor Review (p. 42).

Industry Arbitrators in the New York Metropolitan Area, 1947. New York, State Department of Labor, Division of Research and Statistics, 1948. 14 pp.; processed. (Publication No. B–2.)

Thirty-one permanent ("impartial") chairmen served 56 industry groups in 1947, under collective bargaining controls. About 397,000 workers (in 22,000 establishments) were affected, approximately two-thirds of them being employed in apparel manufacturing. The report discusses powers of the arbitrators, volume of work, and issues.

Arbitration of Labor Disputes in Great Britain. By Jean Atherton Flexner. (*In* Industrial and Labor Relations Review, Cornell University, New York State School of Industrial and Labor Relations, Ithaca, April 1948, pp. 421–430. $1.)

The Conciliation Process. By W. Ellison Chalmers. Urbana, University of Illinois, Institute of Labor and Industrial Relations, 1948. 17 pp. (Publications Series A, Vol. 2, No. 2.) 5 cents.

Cost and Standards of Living

Current Living Costs as Related to Standards of Public Assistance in Pennsylvania, as of December 1947. Harrisburg, Department of Public Assistance, 1948. 24 pp.; processed.

Study of Effect of Increased Cost of Living on Family Life. By Kunio Hidaka. Hamilton, Ontario, Family Service Bureau, 1947. 9 pp., processed, and typewritten tables.

The [Canadian] Cost-of-Living Index—How it is Made; What it Tells. (*In* Canadian Statistical Review, Dominion Bureau of Statistics, Ottawa, February 1948, pp. i-iv, chart. 35 cents.)

In testing the adequacy of the weights currently used for its cost-of-living index, the Dominion Bureau of Statistics recomputed the index by reweighting the main groups according to each of four different systems, including the one used by the U. S. Bureau of Labor Statistics in its "City Worker's Family Budget." It was found that the trend in index movements was only slightly affected by changes in the pattern of expenditures used as weights.

Indices del Costo de la Vida Obrera en América. By Francisco de Abrisqueta and Liborio Cuéllar Gómez. Washington, Pan-American Union, Division of Labor and Social Information, 1948. 156 pp.; processed. (In Spanish.) $1.

Descriptions of cost-of-living indexes in the various American republics, giving data on weighting systems employed, family expenditure studies used in establishing weights, pricing techniques, and statistical methods. Index numbers are given for 1946 and earlier years, in some cases back to 1930.

Education and Training

Apprenticeship Revitalized. By Edward E. Goshen. Washington, U. S. Department of Labor, Bureau of Apprenticeship, 1948. 8 pp., illus. (Reprinted from Railway Age, April 3 and 10, 1948.) Free.

Account of two railroad apprenticeship systems for development of skilled maintenance mechanics, said to be typical of programs now being established throughout the railroad industry.

The Botany Plan. Passaic, N. J., Botany Mills, Inc., 1947. 190 pp.

Text material for a cooperative course in labor-management relations for supervisors, shop chairmen, and shop stewards, conducted jointly by Botany Mills, Inc., and the Textile Workers Union of America (CIO).

A Guide to the Selection and Training of Food Service Employees. [Chicago], American Dietetic Association, 1947. 47 pp.; processed.

Industrial Film Bibliography: A list of Audio-Visual Aids for Use in Industrial Training. Chicago, National Metal Trades Association, August 1947. 44 pp.

A brief description of each film is given together with the terms—loan, sale, rent, and price where there is a charge—upon which it is obtainable.

Proceedings of Third Annual Conference on Training and Research in Industrial Relations, May 22 and 23, 1947. Minneapolis, University of Minnesota, Industrial Relations Center, 1948. 31 pp. (Bull. No. 7.) $1.50.

The Vocational Education and Guidance of Negro Youth in a Changing Social Order. By Leander L. Boykin. (*In* Journal of Negro Education, Washington, Vol. XVII, No. 1, Winter 1948, pp. 42–49. $1.)

Vocational Guidance for Juveniles in the United Kingdom: The Juvenile Employment Service. By H. M. D. Parker. (*In* International Labor Review, Geneva, January-February 1948, pp. 15–25. 50 cents. Distributed in United States by Washington Branch of ILO.)

Guaranteed Wage

The Economics of the Guaranteed Wage. Washington, Chamber of Commerce of the United States, Economic Research Department, 1948. 25 pp. 20 cents.

Explores the possible effects on the economic system of a more general adoption of guaranteed wage plans by more plants and industries, and appraises in particular the theory that general adoption of such plans would prevent depressions and mass unemployment by maintaining purchasing power. Many individual employers can, unquestionably, do more than they have done to eliminate policies contributing to instability of their operations, and adopt policies for encouragement of more steady jobs; but the broader problem of achieving general economic

stability in the national economy, the report points out, "calls for a peaceful world, and the closest cooperation of labor, management, and government" in a program for sustaining employment.

Employment Stabilization: Industry's Progress Toward Steady Work and Steady Pay. New York, National Association of Manufacturers, 1948. 48 pp., bibliography, charts.

Point of view of a leading employers' association regarding guaranteed annual wages and other proposals for stabilizing employment. That point of view is stated in summary to the effect that "the only immediate and sound approach to the problem of greater job security and regular pay is through better stabilization of production and employment within the individual company."

The Handicapped

How to Use Handicapped Workers (A Selected List of References). Cleveland, Ohio, Public Library, Business Information Bureau, October 1947. 5 pp.; processed.

The Placement of Disabled Workers. (*In* International Labor Review, Geneva, November–December 1947, pp. 533–542. 50 cents. Distributed in United States by Washington Branch of ILO.)

Discusses the two main types—mental and physical—of adjustments necessary.

Rehabilitation of the Physically Handicapped. By Henry H. Kessler, M.D. New York, Columbia University Press, 1947. 274 pp., bibliography. $3.50.

The physically handicapped dealt with in this study are "those individuals who have a physical defect, obvious or hidden, which limits their physical capacity to work, or evokes an unfavorable social attitude." Against the background of his many years of "participation in the problems of the physically handicapped," the author analyzes these problems, discusses the principles of rehabilitation (including vocational guidance, training, and placement), and reviews and evaluates various rehabilitation efforts. He points out the need for integration of overlapping activities and urges the adoption of comprehensive Nation-wide rehabilitation programs.

Housing

Federal Aid to Housing. (*In* American Bar Association Journal, Chicago, April 1948, pp. 269–271. 75 cents.)

Account of the unanimous stand taken by the house of delegates of the American Bar Association on February 24, 1948, in support of a housing policy based on active Federal assistance for the building of homes by private enterprise.

Toward a Farm Housing Policy. By Roy J. Burroughs. (*In* Land Economics, Madison, Wis., February 1948, pp. 1–22, maps. $1.50.)

Describes the relatively lower standards of housing on farms than elsewhere, the secondary status of the farmhouse compared with the land, and the existing housing policy of the United States. Remedial measures suggested include temporary grants rather than loans, and increased cooperation and pooling of information by administrative agencies, to meet farm housing needs.

Negroes and the Housing Crisis, 1947. New York, National Urban League, Office of Field Services, 1948. 7 pp.; processed.

An address citing the inadequacies of housing for Negroes and concluding that solution of the problem depends upon an adequate public housing program and abolition of racial restriction.

Reading List on Housing. Washington, U. S. Housing and Home Finance Agency, Office of the Administrator, May 21, 1948. 20 pp.; processed.

Housing in France. By C. Sidney Bertheim. (*In* Land Economics, Madison, Wis., February 1948, pp. 49–62. $1.50.)

Income

Principles of National Income Analysis. By Carl S. Shoup. Boston, Houghton Mifflin Co., 1947. 405 pp., bibliography. $5.

A substantial part of this volume, designed as a textbook on national income and related concepts, is devoted to the problems of the estimators when national income is obtained by totaling the payments to "factors of production." These are generally the salaries and wages paid to labor, and rent, interest, and profits to the owners of property and capital. Also discussed at length is the alternate approach—the measurement of national income by aggregating the market prices of the final product. In theory, both procedures should yield similar results, but obviously, due to the nature of the different types of data, substantial variations are obtained.

National income as a system of national accounts is demonstrated in Chapters 2, 3, and 4, where, using a relatively simple hypothetical economy, the author illustrates how various transactions affect the national income accounts.

The problems of measurement of the Government sector in the national income accounts are probably the most serious in the attempts at estimating. Such questions must be decided as those relating to the inclusion or exclusion of taxes from payments to the various factors, the treatment of free Government services in the accounts, and whether Government spending for the general welfare increases the national income.

What is a Low-Income Family? An analysis of Incomes of Urban Families of Various Types. Chicago, Housing Authority, 1947. 24 pp., charts; processed.

Drawing on the 1940 census, data of the U. S. Bureau of Labor Statistics, and information obtained by the Chicago Housing Authority, the study shows amounts of income received by families of different types, as a guide to the amount of rent that urban families can pay.

National Accounts, Income and Expenditure, [Canada], 1938–46. Ottawa, Department of Trade and Commerce, Dominion Bureau of Statistics, National Income Unit, 1947. 19 pp.; processed. 50 cents.

Preliminary National Income Figures for Norway, 1945–47, and Budgetary Figures for 1948 (with a Summary in English). Oslo, Statistisk Sentralbyrå, 1947. 56 pp. (Supplement to Statistiske Meddelelser, Nos. 10–12, 1947.) 0.50 krone.

Industrial Accidents and Their Compensation

Industrial Safety and Health—A Bibliography, 1947 Edition. Chicago, National Safety Council, [1947]. 69 pp.; processed. 35 cents.

Some Observations on Coal-Mine Haulage Hazards. By H. E. Sanford. Washington, U. S. Department of the Interior, Bureau of Mines, 1948. 13 pp.; processed. (Information Circular No. 7467.)

The discussion of each type of hazard is accompanied by safety recommendations.

Proceedings of All Ohio Safety Congress, Held Under the Auspices of the Industrial Commission of Ohio, Columbus, April 15–17, 1947. Columbus, Industrial Commission of Ohio, Division of Safety and Hygiene, 1947. 591 pp.

Fatal Industrial Accidents in Canada, 1947. (*In* Labor Gazette, Department of Labor, Ottawa, April 1948, pp. 364, 365, 404–412.)

Symposium on Workmen's Compensation. (*In* Occupational Medicine, Chicago, September 1947, pp. 262–287. 75 cents.)

The first of the five papers reproduced describes the workmen's compensation system of Ontario. The others deal primarily with the quality of medical testimony in workmen's compensation cases in the United States.

Industrial Relations

An Appraisal of the Taft-Hartley Act. By Edwin E. Witte. (*In* Papers and Proceedings of 60th Annual Meeting of American Economic Association, Chicago, Ill., December 28–31, 1947, American Economic Review, Evanston, Ill., May 1948, pp. 368–382.)

Recapitulation of effects of Labor Management Relations Act on unions and union-management relations, after 6 months' experience under the act. The conclusion was reached that both employers and employees are restricted by the act and that favorable results are dependent upon genuine collective bargaining.

Union Control Over the Worker's Employment as Affected by the Taft-Hartley Act. (*In* Iowa Law Review, Iowa City, March 1948, pp. 539–553.)

Union Security Clauses Since T-H Act. By James J. Bambrick, Jr. (*In* Management Record, National Industrial Conference Board, Inc., New York, February 1948, pp. 55–68, charts.)

Survey of union-security provisions of 100 contracts, and of check-off provisions of 230 contracts, signed since passage of Taft-Hartley Act.

Collective Bargaining Provisions: Wage Adjustment Plans. Washington, U. S. Bureau of Labor Statistics, 1948. 89 pp.; processed. Free.

Other recent reports in this series cover cost-of-living wage adjustment (escalator) clauses, leave-of-absence, and promotion, transfer, and assignment.

Profit Sharing in Union Agreements (Selected Sample Clauses). Washington. U. S. Bureau of Labor Statistics, 1948. 12 pp.; processed. Free.

The Lawyer's Function in the Field of Labor Relations. By Robert G. Howlett. (*In* Tennessee Law Review, Knoxville, February 1948, pp. 137–151. $1.)

Points out situations in which either a union or a company lawyer can be of service in promoting labor-management accord.

Union-Management Cooperation—Selected References. Washington, U. S. Bureau of Labor Statistics, May 1948. 17 pp.; processed. Free.

Labor Relations in the U. S. Zone of Germany. By Oscar Weigert. Washington, U. S. Bureau of Labor Statistics, 1948. 8 pp., charts. (Serial No. R. 1921, reprinted from Monthly Labor Review, April 1948.) Free.

Industry Reports

Facts About Nursing, 1947. New York, American Nurses' Association, Nursing Information Bureau, [1948]. 74 pp., map. 35 cents.

Data on total number of nurses in the United States and numbers employed in specific fields, counseling and placement of professional nurses, employment conditions, and other subjects. Some of the statistics on employment conditions (as of October 1946) are from a report prepared in the U. S. Bureau of Labor Statistics. For details of latter study, see BLS Bulletin No. 931.

Record of Second Session (Geneva, May 1947) of Inland Transport Committee, International Labor Organization. Geneva, International Labor Office, 1948. 172 pp. $1. Distributed in United States by Washington Branch of ILO.

The Welfare Code. London, Building Industries National Council, 1948. 8 pp. (Bull. No. 26.)

The first national code on welfare conditions for building industry operatives in Great Britain, adopted January 2, 1948—another stage in the peaceful development of industrial conditions under the aegis of the National Joint Council for the Building Industry.

Modernization in the Cotton Spinning Industry: Report on Labor Reemployment in the Musgrave Mill Cardroom, Bolton. Manchester, England, Cotton Board, Labour Department, 1948. 24 pp. 1s. 6d.

The experiment showed the possibility of striking increases in output and earnings by introduction of modern methods and incentive pay without changes in machinery. Earnings were increased by 30 percent and labor cost per pound reduced by 10 percent.

Board of Trade, [Great Britain], Working Party Reports: Cutlery. London, H. M. Stationery Office, 1947. 38 pp. 1s. net.

Appendixes to the report deal briefly with mechanization of the cutlery industry, dust extraction and ventilation, and recruitment and training of workers.

Job Evaluation

Job Evaluation. By Jay L. Otis and Richard H. Leukart. New York, Prentice Hall, Inc., 1948. 473 pp., bibliography, diagrams, forms. $6.65 ($5 to schools).

The authors apply their experience in the fields of psychology and industrial relations to the problem of job evaluation as a sound basis for wage administration policy. The book includes a detailed exposition on the various systems of job evaluation, analysis, and specifications, viewed in relation to their use in the establishment of a wage structure and their place in collective bargaining.

Practical Job Evaluation. By Philip W. Jones. New York, John Wiley & Sons, Inc., 1948. 304 pp., bibliography, diagrams, forms, illus. $4.

Analysis of principles of job evaluation as a technique in industrial management. Gives detailed description of procedures in job evaluation as a tool in wage determination and a factor in collective bargaining. Appendixes include a sample joint labor-management job evaluation manual and representative labor-agreement clauses concerning job evaluation.

Trade and Job Analysis. By Verne C. Fryklund. Milwaukee, Bruce Publishing Co., 1947. 171 pp., bibliographies, diagrams. Rev. ed. $1.75.

Discussion of the principles and procedures of job analysis, designed specifically for teachers and teachers-in-training in the vocational field. Includes suggestions for courses of study on job analysis.

Are You Confronted with Job Evaluation? Washington, Office Employees' International Union, A. F. L., 1947. 33 pp., bibliography. 50 cents.

Labor and Social Legislation

Hours of Work and Full Production. By L. B. Wheildon. Washington (1205 19th Street NW.), Editorial Research Reports, 1948. 14 pp. (Vol. 1, 1948, No. 9.) $1.

Résumé of proposals for modifying the Fair Labor Standards Act's limitations on hours.

The Taft-Hartley Act. By Robert N. Denham. *The Taft-Hartley Act—Another Viewpoint.* By Gerard D. Reilly. (*In* Tennessee Law Review, Knoxville, February 1948, pp. 168–190. $1.)

The first article analyzes the Labor Management Relations [Taft-Hartley] Act, 1947, and states its objectives; the second discusses certain problems which the Act presents to the National Labor Relations Board

High Spots in State School Legislation Enacted in 1947. Washington, National Education Association, Research Division, 1948. 53 pp.; processed.

The legislation summarized includes measures affecting teachers, such as those concerning salaries, retirement, qualifications for employment, and sick leave.

Compilación de Leyes Sociales, [Bolivia]. La Paz, Caja de Seguro y Ahorro Obrero, 1947. 513 pp.

This compilation of Bolivian labor and social legislation covers measures dating from February 20, 1920, to December 4, 1947.

The Early Factory Legislation [in Great Britain]: A Study in Legislative and Administrative Evolution. By Maurice Walton Thomas. Leigh-on-Sea, Thames Bank Publishing Co., Ltd., 1948. 470 pp., bibliography, maps, illus. 35s. net.

Against the background of the economic conditions and the leading industrial and political figures of the nineteenth century, the growth of British protective factory legislation is traced. The enactment of the Health and Morals of Apprenticeship Act of 1802 is characterized as a recognition that the regulation of working hours, the provision of education, facilities for inspection, and some method of publicity are inherent in any system of control; the law is stated to have established the principle of State intervention. The second phase of development began with the adoption of Althorp's Act in 1833, whereby a closely knit centralized system of control was introduced. The factory legislation of 1844 began a third phase and formed the foundation for an ever-widening range of factory legislation. The broad general account is rounded out with information on the enactment of the 10-hour-day law in 1847, which had come close to adoption in 1844 and which laid down the principle of the normal workday, without any loopholes for evasion.

Social Legislation in Poland. New York, Polish Research and Information Service, March 1948. 17 pp.; processed.

The legislation deals with the right of workers to organize and to bargain collectively, public regulation of employment, and the social-insurance system.

Personnel Management

Current Problems of Personnel Management—Outlines and Selected Reading Lists Prepared for Fourth Series of Special Meetings, March 1—May 3, 1948. Pasadena, California Institute of Technology, Industrial Relations Section, 1948. 56 pp.; processed.

Measuring Employee Attitudes. Princeton, N. J., Princeton University, Industrial Relations Section, May 1948. 4 pp. (Selected References, No. 21.) 10 cents.

New Problems and Rising Costs in Management Relations: A Report of Significant Addresses at the 18th Pacific Coast Management Conference. San Francisco, California Personnel Management Association. 1948. 62 pp. $2.

Personnel Practices in Factory and Office. New York, National Industrial Conference Board, Inc., 1948. 76 pp. Rev. ed. (Studies in Personnel Policy, No. 88.)

Analysis of information furnished by 2,479 companies, with about 5,000,000 employees, concerning employment and pay-roll procedures, hours of work, rest periods, absence from work, education and training, health and safety, company services, working rules, disciplinary action, and other matters.

Personnel Administration in TVA—A Selected List of References. Knoxville, Tennessee Valley Authority, Technical Library, January 2, 1948. 8 pp.; processed.

Peacetime Military Service Policies. By John J. Speed. (*In* Management Record, National Industrial Conference Board, Inc., New York, April 1948, pp. 213–216.)

Results of a survey of policies for salaried employees in 466 companies, and for hourly-paid workers in 455 other companies, with respect to the granting of leave and compensation therefor to workers participating in military training programs.

Survey of Personnel Practices in Los Angeles County as of August 1, 1947. By Richard O. Sensor and Mary Faith Martin. Pasadena, California Institute of Technology, Industrial Relations Section, [1948?]. 45 pp.; processed. (Bull. No. 14.) $2.50.

Summary of data from manufacturing and nonmanufacturing companies with respect to work and wage schedules, holiday pay, incentive and premium pay, job evaluation plans, shift differentials, and union representation.

Prices and Price Control

Food Prices, Production, and Consumption. Report by Staff of Joint Committee on the Economic Report, U. S. Congress. Washington, U. S. Government Printing Office, 1948. 71 pp., charts. (Senate Doc. No. 113, 80th Cong., 1st Sess.) 20 cents.

Primary Market and Consumers' Prices in 1947. Washington, U. S. Bureau of Labor Statistics, 1948. 11 pp. (Serial No. R. 1922; reprinted from Monthly Labor Review, March 1948.) Free.

Price Supports for Farm Products. By L. B. Wheildon. Washington (1205 19th Street NW.), Editorial Research Reports, 1948. 16 pp. (Vol. 1, 1948, No. 15.) $1.

Describes existing farm price supports in the United States, reviews the development of price-support policy, and summarizes proposals for changes. These proposals are discussed in the light of the need for a long-term coordinated program which includes the maintenance of full employment and the enlargement of domestic consumption of agricultural products.

Price Control in Canada. By Rose Naidich. (*In* Business Record, National Industrial Conference Board, Inc., New York, March 1948, pp. 126–130, chart.)

Reviews important developments in price controls in Canada during the latter part of 1947 and early 1948. Upward price pressures in early 1948 resulted in the reimposition of a number of controls.

Production and Productivity of Labor

Production in the United States, 1860–1914. By Edwin Frickey. Cambridge, Mass., Harvard University Press, 1947. 265 pp., charts. (Harvard Economic Studies, Vol. LXXXII.) $4.

Separate indexes are given for manufacturing, for transportation and communication, and for the components of these two series, which in turn are combined into an index of industrial and commercial production. For manufacturing, value-added figures are used as weights; for transportation and communication, gross income figures are used. In the general index, manufacturing and transportation and communication are given eqnal weight. The index for transportation and communication is given by months from 1866 to 1914, with adjustments for secular trend and seasonal variations. The indexes for manufacturing as a whole, for transportation and communication as a whole, and for the two combined, are adjusted for secular trend. The author recognizes the limitations of data on output in terms of physical units, especially for the period before 1899. Production in households and shops outside the market economy or for local markets, comparatively important in the earlier periods, cannot be measured adequately.

Man-Hours Expended per Unit for the Manufacture of Men's Dress Shirts in Selected Establishments, 1939 to 1947. Washington, U. S. Bureau of Labor Statistics, 1948. 100 pp., charts; processed. Free.

Social Security (General)

People and Process in Social Security. By Karl de Schweinitz. Washington, American Council on Education, 1948. 165 pp. $2.

Discusses the processes and the social considerations in day-to-day administration of the Federal insurance and assistance programs at various governmental levels. Describes major careers therein, skills required, and education and training needed. Initially, the development of social security, as well as the Social Security Act and its application, are dealt with.

The Second Inter-American Conference on Social Security. By Wilbur J. Cohen. (*In* Social Security Bulletin, Federal Security Agency, Social Security Administration, Washington, March 1948, pp. 13–15. 5 cents, Superintendent of Documents, Washington.)

England's Road to Social Security, 1349 to 1947. By Karl de Schweinitz. Philadelphia, University of Pennsylvania Press, 1947. 281 pp., bibliography. Rev. ed. $3.

Social Services in Britain. New York, etc., British Information Services, 1947. 24 pp., bibliography. (I. S. 780, rev.)

Reviews legislation underlying existing social services in Great Britain. Appendixes give weekly rates of contri-

tions and benefits under the National Insurance and Industrial Injuries Acts of 1946.

Wages, Salaries, and Hours of Labor

Post-Taft-Hartley Wage Increases Analyzed. By Edwin K. Tyson. (*In* Management Record, National Industrial Conference Board, Inc., New York, April 1948, pp. 248–253.)

Wage increases provided for in 172 contracts negotiated in manufacturing and nonmanufacturing industries from June 23, 1947, to March 31, 1948, are analyzed by industry group, geographic region, and union involved.

The "Regular Rate" Under the Fair Labor Standards Act. By Morton Liftin. (*In* Federal Bar Journal, Washington, October 1947, pp. 3–22. 75 cents.)

Discussion of Supreme Court decisions in wage-rate cases involving the meaning of the term "regular rate" under the Fair Labor Standards Act.

Wage Structure, Series 2, No. 64: Cotton Garments, 1947. Washington, U. S. Bureau of Labor Statistics, 1948. 58 pp., charts; processed. Free.

Classification and Pay Plans for Libraries in Institutions of Higher Education: Degree-Conferring Four-Year Institutions; Non-Degree-Conferring Institutions; Universities. Chicago, American Library Association, 1948. 3 vols., variously paged; processed.

Wartime and Postwar Earnings, San Francisco, 1944–46. By Mary Gorringe Luck. Berkeley and Los Angeles, University of California Press, 1948. 129 pp., charts; processed.

Joint publication of Heller Committee for Research in Social Economics and Bureau of Business and Economic Research, Universtity of California.

Wages, Hours and Working Conditions in the Coal Mining Industry, [Canada], October, 1946. (*In* Labor Gazette, Department of Labor, Ottawa, April 1948, pp. 352–354.)

Evolution des Salaires et des Traitements [en France] en 1947. (*In* Études et Conjoncture—Union Française, Ministère des Affaires Économiques, Institut National de la Statistique et des Études Économiques, Paris, February 1948, pp. 3–23.)

Review of wage trends and wage policies in France during 1947. According to estimates prepared in making this study, the purchasing power of monthly earnings of a skilled workman (head of a family including 2 children) in October 1947 was only 59 percent of the October 1938 level; the purchasing power of earnings of an ordinary laborer with the same family status was somewhat higher—69 percent of the prewar level. These figures represented a decrease from the level prevailing in April 1947 when the purchasing power of monthly earnings of the two types of workers was 73 and 80 percent, respectively, of prewar levels. Family allowances have been an important factor in workers' earnings in postwar France; such allowances have been financed by compulsory employers' contributions, representing about 10 percent of pay rolls during 1946. The article includes a discussion of civil servants' salaries and of measures taken during 1947 and early 1948 relative to the reclassification of civil servants.

General Reports

American Labor: The Twenty-First Annual Debate Handbook, 1947–48. Edited by Bower Aly. Columbia, Mo., Lucas Brothers, 1947. 2 vols., 220 pp. each; bibliography. $2.10.

This handbook, prepared for high-school debaters, contains material reprinted from current sources and especially prepared articles by well-known authorities on labor relations. Compulsory arbitration is emphasized, but the volumes also contain articles on more general labor subjects.

Sixty-Fourth Annual Report of U. S. Civil Service Commission, Fiscal Year Ended June 30, 1947. Washington, 1948. 85 pp., charts. 25 cents, Superintendent of Documents, Washington.

In addition to operations data, the report includes specific recommendations for improvement of the Federal civil service, and statistics of employment in the executive branch of the Federal Government, by State and agency, as of June 1947, and of placement of physically impaired persons in Government jobs, October 1942 to August 1947, inclusive.

Inventaire des Ressources de l'Économie Française. (*In* Études et Conjoncture—Union Française, Ministère des Affaires Économiques, Institut National de la Statistique et des Études Économiques, Paris, September-November 1947; 279 pp.)

Analysis of the French economy by the National Institute of Statistics and Economic Research. Period covered in most cases is 1946 and first half of 1947. Manpower, prices, and production are among topics treated in considerable detail.

Indian Industry Today and Tomorrow. By E. Da Costa. London, Longmans, Green & Co., 1947. 166 pp. (Longmans New Era Series, No. 2.) 4s. 6d. net.

Includes discussion of employment, wages, hours of work, and industrial welfare in India. Published before partition of the country.

Statistisk-Økonomisk Oversikt Over Året 1947. Oslo, Statistisk Sentralbyrå, 1948. 131 pp., charts. 2 kroner. (Norges Offisielle Statistikk, X, 143.)

General survey of economic conditions in Norway, including wage, labor-market, and price statistics. A French translation of the table of contents is provided.

Konjunkturläget, Hösten 1947. Stockholm, Konjunkturinstitutet, 1948. 216 pp. (Meddelanden, Serie A:15.)

Review of economic conditions in Sweden in 1947 by the Economic Research Institute of Stockholm. Price and wage trends, the employment situation, and national income and consumption are covered.

Histadrut, 1947: Labor in Palestine. New York, National Committee for Labor Palestine, [1947?]. 48 pp., illus.

Covers the various labor, cultural, economic, and cooperative aspects of Histadrut (General Federation of Jewish Labor in Palestine), and relations with the Arabs.

Current Labor Statistics

A.—Employment and Pay Rolls

72 Table A–1: Estimated total labor force classified by employment status, hours worked, and sex
73 Table A–2: Estimated number of wage and salary workers in nonagricultural establishments, by industry division
73 Table A–3: Estimated number of wage and salary workers in manufacturing industries, by major industry group
74 Table A–4: Estimated number of wage and salary workers in manufacturing industries, by State
75 Table A–5: Estimated number of production workers in manufacturing industries
78 Table A–6: Indexes of production-worker employment in manufacturing industries
80 Table A–7: Indexes of production-worker weekly pay rolls in manufacturing industries
83 Table A–8: Estimated number of employees in selected nonmanufacturing industries
84 Table A–9: Indexes of employment in selected nonmanufacturing industries
84 Table A–10: Indexes of weekly pay rolls in selected nonmanufacturing industries
85 Table A–11: Total Federal employment by branch and agency group
86 Table A–12: Total Federal pay rolls by branch and agency group
87 Table A–13: Total Government employment and pay rolls in Washington, D. C., by branch and agency group
88 Table A–14: Personnel and pay in military branch of Federal Government

B.—Labor Turn-Over

88 Table B–1: Monthly labor turn-over rates (per 100 employees) in manufacturing industries, by class of turn-over
89 Table B–2: Monthly labor turn-over rates (per 100 employees) in selected groups and industries

C.—Earnings and Hours

91 Table C–1: Hours and gross earnings in manufacturing and nonmanufacturing industries
102 Table C–2: Estimated average hourly earnings, gross and exclusive of overtime, of production workers in manufacturing industries
102 Table C–3: Average earnings and hours on private construction projects, by type of firm

D.—Prices and Cost of Living

104 Table D–1: Consumers' price index for moderate-income families in large cities, by group of commodities
105 Table D–2: Consumers' price index for moderate-income families, by city, for selected periods
106 Table D–3: Consumers' price index for moderate-income families, by city and group of commodities
107 Table D–4: Indexes of retail prices of foods, by group, for selected periods
108 Table D–5: Indexes of retail prices of foods, by city
109 Table D–6: Average retail prices and indexes of selected foods
110 Table D–7: Indexes of wholesale prices, by group of commodities, for selected periods
110 Table D–8: Indexes of wholesale prices, by group of commodities, by weeks
111 Table D–9: Indexes of wholesale prices, by group and subgroup of commodities

E.—Work Stoppages

112 Table E–1: Work stoppages resulting from labor-management disputes

F.—Building and Construction

112 Table F–1: Expenditures for new construction
113 Table F–2: Value of contracts awarded and force-account work started on federally financed new construction, by type of construction
114 Table F–3: Urban building authorized, by principal class of construction and by type of building
115 Table F–4: New nonresidential building authorized in all urban places, by general type and by geographic division
116 Table F–5: Number and construction cost of new permanent nonfarm dwelling units started, by urban or rural location, and by source of funds

A: Employment and Pay Rolls

TABLE A–1: Estimated Total Labor Force Classified by Employment Status, Hours Worked, and Se

Estimated number of persons 14 years of age and over [1] (in thousands)

Labor force	1948					1947							
	May [2]	April [2]	Mar. [2]	Feb. [2]	Jan. [2]	Dec. [2]	Nov. [2]	Oct. [2]	Sept. [2]	Aug. [2]	July [2]	June [2]	Ma
Total, both sexes													
Total labor force [3]	61,660	61,760	61,005	61,004	60,455	60,870	61,510	62,219	62,130	63,017	64,035	64,007	61,
Civilian labor force	60,422	60,524	59,769	59,778	59,214	59,590	60,216	60,892	60,784	61,665	62,664	62,609	60,
Unemployment	1,761	2,193	2,440	2,639	2,065	1,643	1,621	1,687	1,912	2,096	2,584	2,555	1,
Employment	58,660	58,330	57,329	57,139	57,149	57,947	58,595	59,204	58,872	59,569	60,079	60,055	58,
Nonagricultural	50,800	50,883	50,482	50,368	50,089	50,985	50,609	50,583	50,145	50,594	50,013	49,678	49,
Worked 35 hours or more	42,726	42,179	42,576	40,977	42,242	43,144	42,616	43,102	42,796	41,068	39,602	41,747	41,
Worked 15–34 hours	4,886	4,902	4,467	5,255	4,614	4,674	5,147	4,534	3,988	4,574	4,630	4,532	4,
Worked 1–14 hours [4]	1,637	1,776	1,684	1,798	1,513	1,631	1,470	1,391	1,312	1,224	1,150	1,243	1,
With a job but not at work [5]	1,550	2,027	1,753	2,338	1,721	1,534	1,376	1,556	2,050	3,726	4,631	2,156	1,
Agricultural	7,861	7,448	6,847	6,771	7,060	6,962	7,985	8,622	8,727	8,975	10,066	10,377	8,
Worked 35 hours or more	5,935	5,670	4,754	3,844	4,729	4,590	5,709	6,867	7,297	6,734	8,067	8,326	6,
Worked 15–34 hours	1,513	1,336	1,397	1,759	1,765	1,631	1,781	1,383	1,077	1,687	1,653	1,700	1,
Worked 1–14 hours [4]	201	187	265	386	250	320	298	204	165	193	171	187	
With a job but not at work [5]	211	255	431	782	315	421	198	167	187	362	174	165	
Males													
Total labor force [3]	44,519	44,589	44,228	44,236	44,071	44,156	44,426	44,754	44,881	45,874	46,213	45,839	44,
Civilian labor force	43,298	43,369	43,009	43,026	42,846	42,892	43,148	43,443	43,551	44,540	44,861	44,460	43,
Unemployment	1,239	1,567	1,765	1,889	1,574	1,239	1,176	1,183	1,393	1,518	1,789	1,707	1,
Employment	42,058	41,801	41,244	41,137	41,273	41,653	41,972	42,260	42,158	43,022	43,071	42,753	41,
Nonagricultural	35,386	35,352	35,063	35,046	35,018	35,484	35,323	35,340	35,202	35,452	34,937	34,729	34,
Worked 35 hours or more	31,006	30,575	30,649	29,592	30,719	31,147	31,020	31,476	31,232	30,302	29,041	30,639	30,
Worked 15–34 hours	2,565	2,525	2,390	2,800	2,414	2,411	2,709	2,212	2,094	2,506	2,555	2,333	2,
Worked 1–14 hours [4]	709	787	729	899	610	738	622	630	522	487	446	469	
With a job but not at work [5]	1,105	1,465	1,294	1,755	1,275	1,187	972	1,022	1,355	2,156	2,895	1,288	1,
Agricultural	6,673	6,450	6,181	6,091	6,254	6,169	6,649	6,920	6,955	7,570	8,134	8,024	7,
Worked 35 hours or more	5,525	5,321	4,548	3,698	4,505	4,376	5,236	5,913	6,175	6,191	7,130	7,187	6,
Worked 15–34 hours	862	816	1,035	1,375	1,255	1,177	1,038	736	523	937	775	588	
Worked 1–14 hours [4]	136	124	211	330	202	252	194	128	87	141	98	101	
With a job but not at work [5]	150	189	387	688	292	364	180	142	169	303	130	148	
Females													
Total labor force [3]	17,141	17,171	16,777	16,768	16,384	16,714	17,084	17,465	17,249	17,143	17,822	18,168	17,
Civilian labor force	17,124	17,155	16,760	16,752	16,368	16,698	17,068	17,449	17,233	17,125	17,803	18,149	17,
Unemployment	522	626	675	750	491	404	445	504	519	578	795	848	
Employment	16,602	16,529	16,085	16,002	15,876	16,294	16,623	16,944	16,714	16,547	17,008	17,302	16,
Nonagricultural	15,414	15,531	15,419	15,322	15,071	15,501	15,286	15,243	14,943	15,142	15,076	14,949	15,
Worked 35 hours or more	11,720	11,604	11,927	11,385	11,523	11,997	11,596	11,626	11,564	10,766	10,561	11,108	11,
Worked 15–34 hours	2,321	2,377	2,077	2,455	2,200	2,263	2,438	2,322	1,894	2,068	2,075	2,199	2,
Worked 1–14 hours [4]	928	989	955	899	903	893	848	761	790	737	704	774	
With a job but not at work [5]	445	562	459	583	446	347	404	534	695	1,570	1,736	868	
Agricultural	1,188	998	666	680	806	793	1,336	1,702	1,772	1,405	1,932	2,353	1,
Worked 35 hours or more	411	349	206	146	224	214	473	954	1,122	543	937	1,139	
Worked 15–34 hours	651	520	362	384	510	454	743	647	554	750	878	1,112	
Worked 1–14 hours [4]	65	63	54	56	48	68	104	76	78	52	73	86	
With a job but not at work [5]	61	66	44	94	23	57	18	25	18	59	44	17	

[1] Estimates are subject to sampling variation which may be large in cases where the quantities shown are relatively small. Therefore, the smaller estimates should be used with caution. All data exclude persons in institutions.

[2] Beginning in June 1947, the estimates are presented rounded to the nearest thousand, and, for convenience, figures under 100,000 are no longer replaced with asterisks. These changes from previous practice do not reflect an improvement in reliability of the data but are made in order to achieve consistency with other census releases on related subjects. Because of rounding, the individual figures no longer add to group totals.

[3] Total labor force consists of the civilian labor force and the armed for

[4] Excludes persons engaged only in incidental unpaid family work (less th 15 hours); these persons are classified as not in the labor force.

[5] Includes persons who had a job or business, but who did not work dur the census week because of illness, bad weather, vacation, labor dispute, because of temporary lay-off with definite instructions to return to w within 30 days of lay-off. Does not include unpaid family workers.

Source: U. S. Department of Commerce, Bureau of the Census.

ABLE A–2: Estimated Number of Wage and Salary Workers in Nonagricultural Establishments, by Industry Division [1]

[In thousands]

Industry division	1948					1947								Annual average	
	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	1943	1939
al estimated employment	44,609	44,279	44,599	44,279	44,603	45,618	44,918	44,758	44,513	44,125	43,686	43,816	43,345	42,042	30,287
nufacturing	15,893	15,896	16,269	16,183	16,267	16,354	16,256	16,209	16,175	15,962	15,580	15,672	15,569	17,381	10,078
ning	933	818	922	914	922	925	923	922	921	923	890	919	910	917	845
Anthracite	81	82	82	81	81	81	81	81	81	82	79	80	81	83	89
Bituminous coal	420	308	419	415	422	421	417	415	412	408	379	409	407	437	388
Metal	102	102	101	101	100	100	100	99	100	102	101	103	102	126	103
Quarrying and nonmetallic	96	94	90	87	89	94	96	97	98	99	98	98	97	90	76
Crude petroleum and natural gas production [2]	234	232	230	230	230	229	229	230	230	232	233	229	223	181	189
ntract construction [3]	2,049	1,966	1,805	1,731	1,871	1,978	2,046	2,099	2,107	2,096	2,043	1,957	1,865	1,567	1,150
nsportation and public utilities [4]	4,041	3,977	4,032	4,019	4,020	4,071	4,077	4,097	4,134	4,163	4,155	4,129	3,981	3,619	2,912
Transportation [4]	2,808	2,747	2,808	2,802	2,809	2,858	2,872	2,899	2,929	2,946	2,943	2,934	2,901	2,746	2,080
Communication	731	731	728	723	719	719	713	707	713	722	721	712	605	488	391
Other public utilities	502	499	496	494	492	494	492	491	492	495	491	483	475	385	441
de	9,615	9,573	9,599	9,520	9,622	10,288	9,886	9,684	9,471	9,356	9,316	9,321	9,277	7,322	6,705
nance	1,716	1,704	1,697	1,690	1,680	1,676	1,673	1,671	1,668	1,688	1,675	1,650	1,643	1,401	1,382
rvice	4,738	4,768	4,729	4,730	4,723	4,688	4,670	4,662	4,634	4,619	4,686	4,711	4,590	3,786	3,228
vernment [4]	5,624	5,577	5,546	5,492	5,498	5,638	5,387	5,414	5,403	5,318	5,341	5,454	5,510	6,049	3,987
Federal	1,788	1,771	1,758	1,746	1,743	1,985	1,751	1,744	1,761	1,795	1,828	1,886	1,905	2,875	898
State and local [4]	3,836	3,806	3,788	3,746	3,755	3,653	3,636	3,670	3,642	3,523	3,513	3,568	3,605	3,174	3,089

[1] Estimates are based upon reports submitted by cooperating establishments and therefore differ from employment information obtained by household interviews, such as the Monthly Report on the Labor Force. The Bureau of Labor Statistics estimates of employment in nonagricultural establishments differ from those of the Monthly Report on the Labor Force (table A–1) in several important respects. The Bureau of Labor Statistics estimates cover all full- and part-time wage and salary workers in private nonagricultural establishments who worked or received pay during the pay period ending nearest the 15th of the month, in Federal establishments during the pay period ending just before the first of the month, and in State and local government during the pay period ending on or just before the last of the month. Persons who worked in more than one establishment during the reporting period would be counted more than once. Proprietors, self-employed persons, domestic servants, unpaid family workers, and personnel of the armed forces are excluded. These estimates have been adjusted to levels indicated by data through 1946 made available by the Federal Security Agency and are not comparable with data published in mimeographed releases dated prior to June 1948 or the Monthly Labor Review dated prior to July 1948. Comparable data from January 1939 are available upon request to the Bureau of Labor Statistics. Data for the current and immediately preceding months are subject to revision.

[2] Includes well drilling and rig building.

[3] These figures cover all employees of private firms whose major activity is construction. They are not directly comparable with the construction employment estimates presented in table 2, p. 1111, of the June 1947 issue of this publication, which include self-employed persons, working proprietors, and force-account workers and other employees of nonconstruction firms or public bodies who engage in construction work, as well as all employees of construction firms. An article presenting this other construction employment series appeared in the August 1947 issue of this publication, and will appear in every third issue thereafter.

[4] Figures are not strictly comparable with those of preceding months because of the transfer of some companies from private to municipal operation in October 1947.

ABLE A–3: Estimated Number of Wage and Salary Workers in Manufacturing Industries, by Major Industry Group [1]

[In thousands]

Major industry group	1948					1947								Annual average	
	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	1943	1939
manufacturing	15,893	15,896	16,269	16,183	16,267	16,354	16,256	16,209	16,175	15,962	15,580	15,672	15,569	17,381	10,078
Durable goods	8,113	8,141	8,258	8,167	8,256	8,274	8,194	8,126	8,070	7,987	7,874	8,050	7,962	10,297	4,357
Nondurable goods	7,780	7,755	8,011	8,016	8,011	8,080	8,062	8,083	8,105	7,975	7,706	7,622	7,607	7,084	5,720
n and steel and their products	1,893	1,898	1,929	1,920	1,925	1,922	1,908	1,896	1,892	1,884	1,854	1,871	1,861	2,034	1,171
ctrical machinery	727	742	756	763	767	773	772	763	752	745	742	759	731	914	355
chinery, except electrical	1,574	1,553	1,587	1,591	1,583	1,589	1,569	1,565	1,560	1,552	1,519	1,558	1,561	1,585	690
nsportation equipment, except automobiles	563	586	589	589	598	591	578	552	540	530	527	594	598	2,951	193
tomobiles	963	972	985	914	989	983	961	964	960	926	941	939	899	845	466
nferrous metals and their products	467	475	482	478	478	482	479	472	468	463	462	475	486	525	283
mber and timber basic products	846	829	827	813	816	829	828	827	821	821	793	798	780	589	465
rniture and finished lumber products	549	560	576	581	580	578	573	565	557	549	534	541	537	429	385
ne, clay, and glass products	531	526	527	518	520	527	526	522	520	517	502	515	509	422	349
xtile-mill products and other fiber manufactures	1,416	1,424	1,435	1,428	1,413	1,409	1,391	1,368	1,341	1,320	1,305	1,325	1,342	1,330	1,235
Apparel and other finished textile products	1,247	1,272	1,334	1,333	1,311	1,305	1,277	1,287	1,251	1,222	1,141	1,141	1,137	1,080	894
Leather and leather products	406	417	442	448	445	446	442	438	435	429	417	414	411	378	383
Food	1,609	1,533	1,655	1,658	1,688	1,735	1,769	1,833	1,964	1,922	1,785	1,666	1,622	1,418	1,192
Tobacco manufactures	97	99	100	101	101	102	104	103	100	99	97	97	96	103	105
Paper and allied products	476	476	480	479	482	484	479	476	470	469	462	470	470	389	320
Printing, publishing, and allied industries	720	718	722	724	726	732	726	720	713	710	706	705	703	549	561
Chemicals and allied products	759	766	773	773	774	778	777	773	763	750	752	748	761	873	421
Products of petroleum and coal	242	237	236	237	238	238	239	237	238	238	237	235	232	170	147
Rubber products	243	245	253	257	259	261	259	257	252	252	250	257	262	231	150
Miscellaneous industries	565	568	579	578	574	590	599	591	578	564	554	564	571	563	311

[1] Estimates include all full- and part-time production and nonproduction workers in manufacturing industries who worked or received pay during the pay period ending nearest the 15th of the month. These estimates have been adjusted to levels indicated by data through 1946 made available by the Federal Security Agency and are not comparable with data published in mimeographed releases dated prior to June 1948 or the Monthly Labor Review dated prior to July 1948. Comparable data from January 1939 are available upon request to the Bureau of Labor Statistics.

TABLE A–4: Estimated Number of Wage and Salary Workers in Manufacturing Industries, by State

[In thousands]

Region and State	1948				1947									Annual aver.
	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	
New England:														
Maine	105.1	111.9	112.2	112.5	113.8	112.5	113.1	114.7	114.5	111.5	107.9	108.0	108.6	
New Hampshire	82.6	84.4	85.6	85.8	85.3	83.9	82.9	82.1	80.7	77.6	79.3	78.7	81.1	
Vermont [2]	38.1	38.7	38.8	39.1	*40.0	*39.5	*39.3	*39.2	*39.1	*37.2	*38.4	*38.7	*40.6	
Massachusetts	729.2	745.6	746.0	747.3	757.2	753.2	741.6	732.5	720.4	707.2	724.7	734.3	749.9	
Rhode Island	149.9	153.6	154.5	153.5	154.6	154.3	152.9	148.1	143.0	141.4	147.0	147.7	150.6	
Connecticut [3]	406.4	412.5	412.1	413.2	*417.8	*415.7	*414.8	*409.2	*406.0	403.3	410.4	415.0	419.9	
Middle Atlantic:														
New York	1,850.4	1,902.6	1,906.4	1,905.8	1,924.6	1,918.6	1,922.8	1,900.1	1,870.8	1,801.9	1,841.6	1,858.0	1,803.4	
New Jersey	744.9	753.7	757.8	757.3	764.0	757.4	751.4	749.2	735.9	719.6	745.2	727.0	738.5	
Pennsylvania	1,459.9	1,512.2	1,510.9	1,514.6	*1,527.2	*1,523.0	*1,517.9	*1,504.5	*1,490.9	*1,470.9	*1,487.2	*1,494.6	*1,507.8	
East North Central:														
Ohio	1,230.5	1,244.0	1,243.9	1,246.0	1,250.9	1,247.3	1,244.7	1,244.0	1,238.1	1,232.0	1,244.5	1,238.7	1,254.6	
Indiana	539.7	552.8	553.4	556.3	559.0	558.7	561.0	580.0	552.3	550.0	553.2	550.1	554.4	
Illinois	1,198.0	1,253.5	1,267.0	1,271.0	1,273.6	1,266.3	1,257.0	1,249.0	1,237.8	1,228.6	1,238.3	1,232.0	1,248.2	
Michigan	1,002.7	1,010.9	970.7	1,019.6	1,024.2	1,019.0	1,021.8	1,023.3	1,004.6	997.0	1,013.1	980.3	1,035.4	
Wisconsin [3]	426.3	432.5	434.2	433.9	436.1	433.1	433.3	452.0	446.6	461.5	427.9	423.5	427.1	
West North Central:														
Minnesota	188.0	197.3	198.3	199.3	200.3	199.9	199.0	209.9	201.6	205.1	194.5	193.5	195.1	
Iowa	132.1	148.8	150.5	150.8	151.8	149.8	148.6	149.4	149.1	147.4	146.5	145.0	146.6	
Missouri	355.8	361.4	363.5	364.5	367.6	366.8	362.6	356.8	356.6	352.9	355.5	351.3	355.9	
North Dakota	6.4	6.3	6.4	6.6	6.7	6.8	6.7	6.7	6.9	6.8	6.8	6.7	6.5	
South Dakota	11.3	11.0	11.1	11.2	11.3	11.5	11.4	11.3	11.5	11.8	11.5	11.3	11.5	
Nebraska	34.9	42.4	43.0	43.8	46.3	45.9	45.1	43.1	43.2	43.4	43.1	42.5	41.9	
Kansas	73.3	77.6	78.3	80.5	81.9	79.9	79.8	79.4	80.0	80.7	81.0	79.5	79.3	
South Atlantic:														
Delaware	46.5	46.5	45.9	45.7	46.1	45.8	45.8	48.2	48.4	45.2	45.4	45.4	44.9	
Maryland	228.2	228.9	228.5	226.9	229.6	231.1	229.3	232.4	228.2	217.4	224.3	228.9	230.7	
District of Columbia	17.4	17.1	16.8	17.3	17.5	17.4	17.5	17.5	17.3	17.4	17.2	17.1	17.2	
Virginia	212.5	213.7	213.5	213.6	*215.1	*217.3	*217.0	214.5	211.5	208.2	207.9	209.4	*209.2	
West Virginia	131.9	130.9	130.3	132.4	132.5	133.0	133.4	132.8	132.5	131.0	132.6	131.5	133.0	
North Carolina	382.6	385.8	380.4	382.2	380.3	378.2	373.6	367.7	366.1	364.7	365.6	366.4	372.9	
South Carolina	199.3	200.5	196.9	198.3	198.9	197.6	194.8	192.3	192.0	191.5	188.9	188.7	189.7	
Georgia	252.4	257.3	258.5	259.4	257.4	256.7	253.9	251.9	248.5	238.2	246.2	249.7	253.9	
Florida [3]	96.5	99.4	98.9	100.3	97.8	95.0	90.4	88.6	86.8	85.7	88.2	88.9	94.9	
East South Central:														
Kentucky	128.2	129.5	129.4	129.5	130.4	130.7	130.3	128.2	125.8	122.4	123.6	123.9	130.7	
Tennessee	251.5	252.8	252.8	251.1	252.4	253.0	253.8	251.8	250.8	246.2	245.2	245.7	249.2	
Alabama [3]	227.3	231.8	231.1	233.7	231.9	231.8	228.9	226.5	221.4	219.6	221.1	222.8	225.2	
Mississippi	88.6	90.0	90.5	95.5	95.7	95.5	94.1	95.0	95.3	91.4	90.9	88.5	90.4	
West South Central:														
Arkansas	75.1	75.4	75.4	75.6	76.0	76.3	76.0	74.9	74.0	71.0	71.5	71.4	72.7	
Louisiana	139.1	137.2	137.0	140.2	142.2	141.2	143.5	142.7	142.6	140.9	138.6	136.6	135.2	
Oklahoma	56.3	55.6	55.0	56.4	57.0	56.5	55.7	55.2	55.2	53.8	53.5	53.0	54.1	
Texas	338.7	337.1	340.2	342.9	346.8	347.6	339.9	337.8	341.5	335.1	339.3	324.5	325.9	
Mountain:														
Montana	17.1	17.2	17.3	17.7	18.5	18.7	19.1	18.1	18.2	18.4	17.8	17.1	16.6	
Idaho	17.9	17.8	18.2	18.6	19.2	20.1	20.4	19.3	19.5	20.8	20.1	19.2	18.4	
Wyoming	6.3	6.2	6.1	6.1	7.0	7.2	7.1	6.8	6.8	6.7	6.3	6.1	5.9	
Colorado	55.4	55.5	55.1	57.2	61.0	60.3	60.6	57.9	56.6	55.9	54.6	53.8	54.1	
New Mexico [3]	8.9	8.3	8.7	8.7	9.1	9.1	9.4	9.6	9.8	9.6	9.6	9.6	9.3	
Arizona [3]	15.9	15.4	15.0	*14.6	*14.6	*14.5	*14.0	*13.6	*13.2	*13.8	*14.4	*14.2	14.5	
Utah	22.6	23.9	23.9	25.1	26.8	27.3	29.4	30.1	26.3	29.1	24.9	24.1	23.5	
Nevada [3]	3.3	3.3	3.3	3.3	3.3	3.5	3.5	3.4	3.4	3.4	3.3	3.3	3.4	
Pacific:														
Washington	175.3	173.7	173.0	173.0	174.6	178.2	183.9	191.7	185.0	176.5	179.3	174.9	170.4	
Oregon	110.2	110.2	109.2	109.8	111.4	112.2	117.2	122.2	122.4	116.6	119.1	117.1	115.5	
California	695.1	700.4	703.1	704.8	714.8	717.4	736.3	*744.6	*760.1	*703.8	689.1	*693.0	*699.6	

[1] Revised data in all except the first three columns are identified by an asterisk for the first month's publication of such data. Comparable series, January 1943 to date, available upon request to U. S. Department of Labor, or cooperating State Agency listed below.

[2] 1943 averages may not be strictly comparable with current data for those States now on Standard Industrial Classification.

[3] New series based on Standard Industrial Classification; Vermont, Connecticut, and Wisconsin are not strictly comparable with data published prior to the April 1948 issue; Arizona prior to the May issue; Nevada and New Mexico prior to the June issue; Alabama and Florida are not strictly comparable with data previously published.

* Revised.

Cooperating State Agencies:

Alabama—Department of Industrial Relations, Montgomery 5.
Arizona—Employment Security Commission, Phoenix.
Arkansas—Employment Security Division, Department of Labor, Little Rock.
California—Division of Labor Statistics and Research, San Francisco 2.
Connecticut—Employment Security Division, Hartford 15.
Delaware—Federal Reserve Bank of Philadelphia, Philadelphia 1, Pa.
Florida—Industrial Commission, Tallahassee.
Georgia—Employment Security Administration, Atlanta 3.
Illinois—Department of Labor, Chicago 1.
Indiana—Employment Security Division, Indianapolis 12.
Iowa—Employment Security Commission, Des Moines 8.
Kansas—State Labor Department, Topeka.
Louisiana—State University, Bureau of Business Research, Baton Rouge 3.
Maine—Unemployment Compensation Commission, Augusta.
Maryland—Department of Labor and Industry, Baltimore 2.
Massachusetts—Department of Labor and Industries, Boston 33.
Michigan—Department of Labor and Industry, Lansing 13.
Minnesota—Division of Employment and Security, St. Paul 1.
Missouri—Division of Employment Security, Jefferson City.
Montana—Unemployment Compensation Commission, Helena.
Nevada—Employment Security Department, Carson City.
New Jersey—Department of Labor, Trenton 8.
New Mexico—Employment Security Commission, Albuquerque.
New York—Department of Labor, Division of Placement and Unemployment Insurance, New York 17.
North Carolina—Department of Labor, Raleigh.
Oklahoma—Employment Security Commission, Oklahoma City.
Pennsylvania—Federal Reserve Bank of Philadelphia, Philadelphia (Mfg.); Department of Labor and Industry, Harrisburg (Nonmfg.).
Rhode Island—Department of Labor, Division of Census and Statistics, Providence 2.
Tennessee—Department of Employment Security, Nashville 3.
Texas—University of Texas, Bureau of Business Research, Austin.
Utah—Department of Employment Security, Salt Lake City 13.
Vermont—Unemployment Compensation Commission, Montpelier.
Virginia—Department of Labor and Industry, Division of Research and Statistics, Richmond 21.
Washington—Employment Security Department, Olympia.
Wisconsin—Industrial Commission of Wisconsin, Madison 3.
Wyoming—Employment Security Commission, Casper.

TABLE A–5: Estimated Number of Production Workers in Manufacturing Industries

[In thousands]

Industry group and industry	1948					1947								Annual average	
	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	1943	1939
All manufacturing [1]	12,723	12,791	13,132	13,066	13,150	13,263	13,176	13,143	13,125	12,928	12,562	12,672	12,597	14,560	8,192
Durable goods [1]	6,630	6,683	6,792	6,711	6,795	6,816	6,746	6,681	6,630	6,555	6,452	6,639	6,572	8,727	3,611
Nondurable goods [1]	6,093	6,108	6,340	6,355	6,355	6,447	6,430	6,462	6,495	6,373	6,110	6,033	6,025	5,834	4,581
Durable goods															
Iron and steel and their products [1]	1,600	1,603	1,634	1,628	1,634	1,633	1,619	1,609	1,604	1,597	1,569	1,588	1,582	1,761	991
Blast furnaces, steel works, and rolling mills		511.8	516.1	508.5	508.8	506.5	505.6	505.1	505.1	508.6	503.0	501.2	494.5	516.7	388.4
Gray-iron and semisteel castings		110.7	113.9	114.5	114.4	113.8	113.1	113.1	112.4	113.6	113.0	115.0	115.5	88.4	62.2
Malleable-iron castings		37.2	37.9	37.8	37.9	37.6	36.7	36.1	35.6	35.4	33.7	35.6	34.6	28.8	19.2
Steel castings		68.6	69.3	68.6	67.7	67.0	66.4	66.2	66.2	65.5	64.0	65.4	66.4	90.1	32.1
Cast-iron pipe and fittings		27.5	28.3	28.0	28.7	28.7	28.3	28.1	27.8	27.5	27.1	27.4	27.5	18.0	17.6
Tin cans and other tinware		42.1	44.5	45.7	47.4	47.8	47.1	47.0	48.4	47.6	44.3	42.7	42.1	32.4	31.8
Wire drawn from purchased rods		30.1	30.6	30.9	31.4	31.6	31.2	31.0	30.5	30.8	30.6	31.0	26.5	36.0	22.0
Wirework		41.9	43.4	42.5	43.5	42.4	40.5	40.6	41.1	40.3	39.0	39.9	39.5	32.8	30.4
Cutlery and edge tools		24.4	24.8	24.6	24.7	25.0	24.8	24.5	23.9	23.3	21.5	23.5	25.7	21.8	15.4
Tools (except edge tools, machine tools, files, and saws)		25.5	25.7	25.8	25.9	25.9	25.4	25.0	24.6	24.4	23.9	25.4	24.9	27.8	15.3
Hardware		53.0	54.3	54.1	53.2	52.6	51.1	50.3	49.3	48.3	49.1	49.9	50.4	45.3	35.7
Plumbers' supplies		39.4	40.2	40.0	40.0	40.0	39.6	38.7	38.4	38.5	38.3	39.0	40.3	25.0	26.2
Stoves, oil burners, and heating equipment, not elsewhere classified		77.8	83.1	86.5	88.5	90.9	91.5	91.1	90.3	86.4	82.7	84.3	84.3	60.4	49.2
Steam and hot-water heating apparatus and steam fittings		59.5	62.7	63.2	62.6	62.5	61.8	61.7	61.2	61.3	60.3	64.0	65.0	64.4	32.3
Stamped and enameled ware and galvanizing		111.2	114.1	115.1	115.5	117.1	116.4	115.3	114.7	111.9	109.2	110.9	112.6	97.0	59.2
Fabricated structural and ornamental metalwork		60.6	60.7	60.2	60.5	60.7	60.5	59.8	60.3	60.3	59.1	59.2	59.4	71.0	35.5
Metal doors, sash, frames, molding, and trim		10.1	10.5	10.2	10.8	10.9	10.7	10.5	10.3	10.1	9.6	9.4	9.1	12.8	7.7
Bolts, nuts, washers, and rivets		28.9	28.9	28.7	28.7	28.6	28.4	27.8	28.3	28.4	27.7	28.5	28.8	31.6	15.2
Forgings, iron and steel		36.7	37.5	37.6	37.8	37.4	36.8	36.7	36.3	36.2	35.9	36.5	35.9	43.6	16.4
Wrought pipe, welded and heavy-riveted		18.8	19.2	19.1	19.8	19.6	18.9	18.4	17.8	17.7	17.3	17.1	18.0	28.4	8.9
Screw-machine products and wood screws		36.8	36.8	36.6	36.1	35.8	35.5	35.4	35.3	35.4	36.0	37.3	37.7	53.8	18.0
Steel barrels, kegs, and drums		7.7	7.9	8.1	8.4	8.2	8.0	8.0	8.2	8.3	8.4	8.2	8.5	8.5	6.5
Firearms		21.0	20.8	20.4	20.0	19.7	19.3	19.0	18.5	18.3	19.3	19.0	19.0	71.7	5.3
Electrical machinery [1]	548	563	577	584	588	596	595	588	578	569	567	584	564	741	259
Electrical equipment		364.9	371.7	376.5	378.4	382.2	380.3	377.1	373.7	368.2	368.8	378.3	369.7	497.5	182.7
Radio and phonographs		93.4	97.6	99.2	100.3	104.8	106.3	104.3	99.6	96.8	93.3	98.3	102.7	124.1	44.0
Communication equipment		93.9	96.5	97.2	98.2	98.2	97.5	95.6	93.6	93.3	94.0	97.3	81.3	119.3	32.5
Machinery, except electrical [1]	1,207	1,202	1,232	1,237	1,231	1,235	1,218	1,214	1,209	1,198	1,171	1,208	1,216	1,293	529
Machinery and machine-shop products		495.9	500.1	502.8	500.2	498.9	497.3	498.8	498.7	495.1	490.8	501.3	503.1	586.0	207.6
Engines and turbines		53.9	54.7	54.4	54.6	54.5	53.0	53.3	53.5	53.5	53.1	53.1	54.7	79.5	18.7
Tractors		44.8	62.2	61.9	61.4	60.3	58.6	58.0	57.1	55.7	56.8	57.0	55.9	52.4	31.3
Agricultural machinery, excluding tractors		76.2	75.9	74.6	72.3	71.0	68.0	67.5	67.6	66.4	64.4	67.5	65.9	45.1	28.5
Machine tools		47.7	49.2	50.4	50.4	51.3	51.1	52.1	52.3	52.5	50.6	53.9	55.5	109.7	36.6
Machine-tool accessories		55.5	55.9	56.3	56.4	56.3	55.8	55.6	56.0	56.4	55.4	59.1	60.5	105.4	25.8
Textile machinery		41.2	41.1	40.8	40.7	40.6	39.8	39.3	37.3	36.4	36.4	39.0	38.7	28.5	21.9
Pumps and pumping equipment		69.9	71.3	73.0	73.1	72.8	72.2	72.3	73.9	73.3	74.1	77.0	77.3	92.8	24.9
Typewriters		24.1	24.9	25.1	25.8	25.9	25.2	24.8	24.2	23.6	14.5	18.3	24.0	12.0	16.2
Cash registers; adding, and calculating machines		46.3	46.1	45.9	45.3	45.2	44.1	43.0	42.1	41.0	37.9	38.1	41.0	34.8	19.7
Washing machines, wringers, and driers, domestic		16.2	16.3	16.5	16.2	16.3	15.8	15.3	14.9	15.1	14.6	15.0	14.6	13.3	7.5
Sewing machines, domestic and industrial		13.8	13.7	13.5	13.4	13.3	13.0	12.6	12.1	12.1	12.0	10.8	10.6	10.7	7.8
Refrigerators and refrigeration equipment		79.9	80.9	81.6	82.6	81.5	80.1	79.7	79.1	78.6	77.2	78.9	74.8	54.4	35.2
Transportation equipment, except automobiles [1]	438	462	465	464	472	463	452	427	414	405	403	472	475	2,508	159
Locomotives		26.6	26.6	26.5	26.3	26.3	26.0	25.9	25.1	24.4	23.8	24.3	23.8	34.1	6.5
Cars, electric- and steam-railroad		54.0	54.4	54.0	55.9	56.9	56.8	55.2	55.4	54.6	55.1	54.9	55.2	60.5	24.5
Aircraft and parts, excluding aircraft engines		137.3	136.1	135.3	134.7	133.2	133.4	133.9	129.7	130.7	129.3	133.9	138.2	794.9	39.7
Aircraft engines		24.8	24.6	24.9	25.3	25.9	25.9	26.2	26.6	26.7	26.8	26.9	27.0	233.5	8.9
Shipbuilding and boatbuilding		122.5	125.8	127.7	132.9	125.7	117.6	100.2	93.0	87.1	87.7	140.4	140.3	1,225.2	69.2
Motorcycles, bicycles, and parts		14.4	14.8	14.6	14.5	14.7	14.4	14.1	13.9	13.6	13.0	13.3	12.8	10.0	7.0
Automobiles [1]	759	775	785	720	789	785	766	764	767	741	753	758	720	714	402
Nonferrous metals and their products [1]	398	406	413	409	409	413	410	404	400	396	393	408	418	449	229
Smelting and refining, primary, of nonferrous metals		41.0	40.8	40.2	39.9	40.0	39.7	39.7	39.8	39.9	40.8	40.4	39.8	56.4	27.6
Alloying; and rolling and drawing of nonferrous metals, except aluminum		53.7	54.6	53.1	53.6	53.4	52.9	53.0	53.2	53.4	54.3	57.6	60.2	75.8	38.8
Clocks and watches		28.5	28.8	28.6	28.6	28.6	28.4	28.1	27.8	27.2	24.8	27.5	27.8	25.2	20.3
Jewelry (precious metals) and jewelers' findings		27.1	27.6	27.5	27.3	27.7	28.1	27.5	26.4	25.6	24.7	25.3	25.6	20.5	14.4
Silverware and plated ware		27.5	27.5	27.1	26.8	27.1	26.5	26.1	25.5	25.0	23.7	24.3	24.2	15.1	12.1

See footnote at end of table.

TABLE A–5: Estimated Number of Production Workers in Manufacturing Industries [1]—Continued

[In thousands]

Industry group and industry	1948					1947								Annual average	
	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	1943	1939
Durable goods—Continued															
Nonferrous metals and their products [1]—Con.															
Lighting equipment		31.3	33.1	33.9	33.6	34.1	34.3	34.9	35.2	35.3	36.4	37.0	37.7	28.2	20.6
Aluminum manufactures		44.2	45.2	45.2	45.3	44.8	43.6	43.1	42.4	41.0	40.0	43.6	46.5	79.4	21.1
Sheet-metal work, not elsewhere classified		36.0	36.8	36.9	37.3	39.4	39.2	38.8	37.6	37.7	37.6	38.6	38.0	37.9	18.7
Lumber and timber basic products [1]	768	751	749	736	738	750	751	751	745	745	721	727	710	535	42.6
Sawmills and logging camps		536.5	536.6	526.7	531.3	544.4	547.3	550.2	549.6	551.5	531.3	534.7	523.8	435.8	312.5
Planing and plywood mills		135.3	135.3	134.5	134.6	133.6	132.4	129.8	128.1	127.1	126.5	128.6	126.1	99.2	70.1
Furniture and finished lumber products [1]	458	470	485	490	489	487	483	475	466	460	445	452	450	366	72.6
Mattresses and bedsprings		32.7	34.6	36.2	36.3	36.0	35.9	34.9	33.3	31.5	28.5	29.9	29.8	21.7	20.5
Furniture		239.7	246.9	249.4	248.6	246.8	243.6	238.6	233.1	230.3	223.9	227.0	225.9	200.0	177.1
Wooden boxes, other than cigar		33.8	34.6	35.2	35.5	34.8	35.3	36.0	35.8	35.6	35.1	36.2	36.3	35.4	26.3
Caskets and other morticians' goods		18.9	19.4	19.4	19.7	19.8	19.7	19.4	19.6	19.4	19.1	19.2	19.3	14.2	11.0
Wood preserving		15.1	15.6	15.7	16.5	16.9	17.4	17.9	18.2	18.9	18.8	18.6	18.2	12.4	12.6
Wood, turned and shaped		32.8	33.5	32.9	32.2	32.8	32.5	31.6	31.4	31.5	30.2	30.2	30.5	26.4	24.8
Stone, clay, and glass products [1]	454	451	452	443	445	454	452	449	447	444	430	442	437	360	294
Glass and glassware		117.9	117.8	115.1	117.2	119.7	120.1	120.0	118.9	118.2	113.1	120.3	122.1	99.8	71.6
Glass products made from purchased glass		12.4	12.5	12.4	12.5	12.7	12.6	12.2	12.0	12.0	12.4	12.4	12.8	11.3	10.6
Cement		36.6	36.4	36.6	36.3	36.7	36.8	36.8	37.0	36.8	35.7	35.3	29.7	27.1	24.4
Brick, tile, and terra cotta		76.1	75.5	73.7	76.3	76.3	75.8	75.6	75.4	75.1	73.3	73.0	72.1	52.5	56.0
Pottery and related products		56.6	57.6	56.5	56.1	57.6	57.2	56.1	55.9	56.1	54.3	55.5	56.0	45.0	32.0
Gypsum		6.6	6.6	6.6	6.6	6.6	6.5	6.4	6.1	6.1	6.1	6.0	5.7	4.5	4.3
Wallboard, plaster (except gypsum), and mineral wool		12.4	12.4	12.5	12.6	12.7	12.7	12.3	12.1	11.8	11.5	11.2	11.0	11.1	8.1
Lime		9.6	9.5	9.3	9.3	9.3	9.5	9.1	9.2	9.2	9.3	9.3	9.4	9.3	9.2
Marble, granite, slate, and other products		17.9	18.4	17.9	18.0	18.3	18.5	18.4	18.5	18.4	16.8	16.5	16.6	12.5	18.1
Abrasives		17.5	17.5	17.1	13.8	16.8	16.5	16.5	16.9	16.2	17.0	18.7	19.4	23.4	7.7
Asbestos products		21.9	22.0	21.8	21.9	21.7	21.3	21.3	21.0	20.6	19.5	20.7	20.9	22.0	13.8
Nondurable goods															
Textile-mill products and other fiber manufactures [1]	1,293	1,301	1,312	1,306	1,292	1,290	1,271	1,249	1,223	1,202	1,187	1,208	1,226	1,237	1,144
Cotton manufactures, except smallwares		526.4	529.4	525.3	523.6	523.2	516.9	508.2	498.9	494.1	492.6	501.7	509.0	526.3	438.0
Cotton smallwares		14.6	14.9	14.9	14.6	14.3	13.9	13.7	13.4	13.1	13.1	13.7	14.6	17.8	14.1
Silk and rayon goods		111.7	111.6	110.8	107.4	108.2	106.9	105.7	103.3	101.5	99.9	101.7	103.1	104.1	128.8
Woolen and worsted manufactures, except dyeing and finishing		175.0	178.3	179.5	177.4	177.3	174.2	170.9	168.7	162.9	158.1	162.9	164.3	174.1	187.7
Hosiery		139.2	141.2	140.2	139.1	138.4	136.2	133.4	130.2	128.2	125.9	124.4	128.8	125.9	109.0
Knitted cloth		11.8	11.7	11.7	11.6	11.5	11.5	11.2	11.0	10.9	10.3	10.5	10.7	12.6	11.1
Knitted outerwear and knitted gloves		31.0	31.6	31.5	30.6	31.3	31.4	30.8	29.6	67.9	27.0	28.0	29.6	34.8	29.1
Knitted underwear		50.0	50.3	49.8	49.1	48.8	47.8	46.9	45.6	45.0	43.6	43.8	43.2	44.9	46.1
Dyeing and finishing textiles, including woolen and worsted		88.3	88.5	88.9	87.9	87.5	85.9	85.1	83.0	81.2	80.2	83.4	84.2	80.2	70.0
Carpets and rugs, wool		36.6	36.6	36.2	35.7	35.4	34.4	33.6	32.9	32.4	31.9	31.9	31.7	24.5	27.0
Hats, fur-felt		12.7	13.7	13.7	13.7	13.8	13.6	13.6	13.2	13.3	12.8	13.1	12.7	11.0	11.0
Jute goods, except felts		4.3	4.1	4.2	4.0	3.1	3.0	3.0	2.9	3.0	4.1	4.2	4.3	4.2	3.1
Cordage and twine		16.7	17.1	17.2	16.8	16.5	16.1	15.4	14.7	14.9	14.8	15.5	15.8	18.3	12.0
Apparel and other finished textile products [1]	1,082	1,103	1,165	1,166	1,147	1,143	1,117	1,127	1,096	1,071	992	993	990	958	790
Men's clothing, not elsewhere classified		310.0	314.5	311.3	308.1	310.5	309.2	306.9	299.4	294.7	278.2	284.5	280.5	265.9	238.0
Shirts, collars, and nightwear		82.0	82.2	82.0	81.6	82.4	81.1	79.3	77.2	75.1	71.7	74.3	73.2	67.2	74.0
Underwear and neckwear, men's		18.7	19.0	18.7	18.1	18.4	18.1	17.3	17.1	16.6	15.4	16.8	17.4	16.3	17.0
Work shirts		17.8	17.5	16.8	15.8	15.5	15.5	15.8	15.9	15.6	14.0	14.4	15.3	18.5	14.0
Women's clothing, not elsewhere classified		440.0	481.7	485.3	476.2	470.5	452.1	462.3	452.1	440.4	400.2	389.1	389.3	345.3	289.0
Corsets and allied garments		19.2	19.9	20.1	19.7	19.6	19.4	18.8	18.1	17.5	16.9	17.7	17.7	16.5	18.0
Millinery		23.4	27.6	27.9	26.4	23.5	21.6	25.2	23.8	23.6	20.5	20.2	20.3	23.3	23.0
Handkerchiefs		5.1	5.1	5.0	4.9	5.1	5.2	5.1	5.0	4.6	4.2	4.6	4.7	5.7	1.4
Curtains, draperies, and bedspreads		28.0	30.6	33.8	31.6	32.2	32.1	30.9	28.7	27.3	23.2	22.5	22.2	25.2	17.1
Housefurnishings, other than curtains, etc		28.9	30.4	29.2	30.0	30.6	30.0	31.6	30.6	29.4	26.6	28.6	29.3	24.0	11.2
Textile bags		26.8	27.3	27.8	28.2	28.6	28.4	28.1	27.8	27.5	26.9	27.1	27.8	19.6	12.5
Leather and leather products [1]	360	372	296	402	399	400	396	393	390	385	373	370	368	340	367
Leather		44.3	45.8	46.8	46.8	46.9	46.9	46.9	46.7	46.0	45.4	45.5	45.9	46.5	36.0
Boot and shoe cut stock and findings		17.7	18.9	19.5	19.7	19.8	19.8	19.6	19.3	19.2	18.8	18.0	18.3	19.2	20.0
Boots and shoes		212.9	229.5	233.1	231.8	231.3	227.5	225.8	225.1	223.4	216.8	214.4	212.6	205.6	220.0
Leather gloves and mittens		12.6	12.5	12.5	12.2	13.0	13.2	13.1	12.8	12.7	11.9	12.1	12.0	15.4	10.0
Trunks and suitcases		13.3	13.9	14.0	13.3	14.2	14.8	14.4	13.5	12.7	11.7	12.2	12.1	13.7	8.9
Food [1]	1,086	1,047	1,149	1,159	1,191	1,255	1,288	1,353	1,483	1,442	1,311	1,192	1,152	1,056	851
Slaughtering and meat packing		99.7	180.9	187.0	196.7	203.7	191.7	183.0	182.0	182.9	182.3	176.4	172.9	174.0	153.0
Butter		35.3	32.8	32.0	32.6	32.9	33.9	34.8	35.8	37.8	38.8	38.4	37.4	33.2	26.0
Condensed and evaporated milk		20.5	19.3	18.8	18.4	18.6	19.5	20.5	21.2	22.7	23.5	23.5	22.4	19.9	16.0
Ice cream		27.1	24.4	23.6	23.6	24.9	26.3	27.8	31.1	32.8	33.4	33.1	30.0	23.0	7.0
Flour		37.4	37.8	38.2	39.2	39.4	39.7	39.8	39.0	39.3	39.4	37.9	36.9	32.9	27.0
Feeds prepared		26.6	26.3	27.4	29.3	29.1	28.5	28.9	29.6	29.9	29.6	29.0	27.5	25.0	24.0

See footnote at end of table.

TABLE A–5: Estimated Number of Production Workers in Manufacturing Industries [1]—Continued

[In thousands]

Industry group and industry	1948					1947								Annual average	
	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	1943	1939
Nondurable goods—Continued															
Food [1]—Continued															
Cereal preparations		12.2	12.1	12.4	12.1	12.1	12.8	12.8	14.0	14.2	13.1	12.2	11.9	11.4	8.4
Baking		217.5	219.7	217.2	215.4	220.8	224.8	224.5	219.8	218.0	216.6	213.2	211.4	211.3	190.4
Sugar refining, cane		17.9	19.6	20.2	18.4	20.0	20.8	20.5	20.8	20.8	20.8	20.4	19.7	16.7	15.9
Sugar, beet		5.4	5.6	6.5	10.6	20.9	26.2	26.3	11.9	10.5	8.1	7.1	6.5	10.1	11.6
Confectionery		60.7	65.9	70.3	74.7	78.7	79.5	76.4	68.3	62.8	57.9	60.2	62.0	59.5	55.7
Beverages, nonalcoholic		36.1	34.2	32.1	33.4	33.3	34.3	35.8	39.3	39.7	35.5	32.2	30.0	32.2	23.8
Malt liquors		69.8	67.6	66.9	68.0	69.7	73.3	74.7	76.2	76.0	74.0	70.6	66.9	54.3	40.5
Canning and preserving		126.7	122.1	123.4	128.5	148.9	172.0	240.1	384.3	349.7	246.2	155.3	135.7	188.5	150.3
Tobacco manufactures [1]	84	86	87	88	87	88	90	89	86	85	84	84	83	91	93
Cigarettes		33.2	33.2	33.5	33.6	34.2	34.0	33.4	32.6	32.9	32.9	33.3	32.9	33.9	27.4
Cigars		39.8	40.7	40.8	40.4	40.2	42.2	41.6	40.3	39.3	37.9	38.0	37.0	47.3	55.8
Tobacco (chewing and smoking) and snuff		6.8	6.9	6.9	7.0	7.3	7.2	7.3	7.1	7.0	6.9	6.8	6.7	9.3	10.1
Paper and allied products [1]	389	389	393	392	395	398	394	392	388	387	380	388	388	324	265
Paper and pulp		200.2	200.4	199.7	199.8	199.6	197.6	196.9	197.0	196.6	194.2	194.7	193.2	160.3	137.8
Paper goods, other		56.8	57.3	57.3	57.9	59.1	58.8	58.6	57.3	56.7	56.4	57.9	57.9	50.2	37.7
Envelopes		12.7	12.7	12.5	12.4	12.4	12.4	12.2	12.0	11.8	11.6	11.9	12.0	10.2	8.7
Paper bags		18.0	18.2	18.0	18.1	18.2	17.9	17.9	17.7	18.0	17.8	18.2	18.7	13.1	11.1
Paper boxes		92.7	95.2	96.5	97.7	99.6	99.0	98.1	96.0	95.6	92.6	97.0	98.2	89.6	69.3
Printing, publishing, and allied industries [1]	433	432	435	438	439	445	444	441	437	434	430	431	430	331	328
Newspapers and periodicals		145.4	144.8	144.1	143.6	145.6	145.1	144.6	144.4	143.0	142.2	142.0	141.2	113.0	118.7
Printing; book and job		175.3	177.5	179.7	181.7	183.4	182.0	180.7	177.5	175.7	176.4	175.8	175.1	138.7	127.6
Lithographing		31.3	31.4	31.8	32.0	32.9	33.0	32.6	32.4	32.6	31.5	32.4	32.7	25.9	26.3
Bookbinding		36.0	37.2	37.4	37.6	38.3	38.7	38.5	38.2	38.3	37.0	37.5	37.4	29.4	25.8
Chemicals and allied products [1]	572	580	587	588	588	592	580	586	576	563	562	561	575	734	288
Paints, varnishes, and colors		50.1	50.7	51.5	50.7	50.6	50.2	49.9	49.6	49.0	48.6	50.0	50.3	38.2	28.3
Drugs, medicines, and insecticides		64.2	65.2	65.6	65.7	65.9	66.4	67.1	67.1	66.2	66.7	67.8	69.0	56.0	27.5
Perfumes and cosmetics		11.2	11.6	12.1	12.0	12.9	13.9	13.5	12.6	12.1	11.7	12.0	11.9	14.1	10.4
Soap		21.8	24.9	25.4	25.5	25.5	25.8	25.3	24.7	23.9	24.0	24.3	23.7	17.9	15.3
Rayon and allied products		63.5	63.7	63.7	63.2	63.5	63.1	62.9	62.1	61.1	61.0	52.5	61.3	54.0	48.3
Chemicals, not elsewhere classified		198.0	196.3	196.5	197.7	198.1	196.4	195.0	195.1	196.3	197.7	198.8	196.4	144.5	69.9
Explosives and safety fuses		22.1	22.4	22.1	22.0	21.9	21.7	21.4	21.2	21.1	19.6	21.2	21.2	112.0	7.3
Compressed and liquefied gases		10.0	9.9	9.8	9.9	9.9	9.7	9.7	9.9	10.1	9.8	9.9	9.6	7.8	4.0
Ammunition, small-arms		7.8	7.8	7.8	*7.7	7.4	7.2	7.2	7.0	4.4	6.9	7.1	7.0	154.1	4.3
Fireworks		2.4	2.4	2.6	2.5	2.8	2.9	2.9	2.5	2.1	2.4	2.9	3.0	28.2	1.2
Cottonseed oil		15.2	17.6	19.5	21.7	24.4	24.5	24.0	18.3	13.1	11.6	11.9	13.1	20.4	15.3
Fertilizers		33.4	34.7	32.3	30.4	28.0	26.7	26.8	26.7	25.1	23.8	25.0	29.7	27.5	18.8
Products of petroleum and coal [1]	167	164	165	163	164	165	165	165	166	166	165	163	161	125	106
Petroleum refining		110.9	110.8	109.4	109.7	109.9	109.7	109.7	110.8	111.9	111.8	109.9	108.8	83.1	73.2
Coke and byproducts		29.7	30.6	30.3	30.5	30.0	30.0	29.6	29.3	29.2	29.0	28.8	28.4	25.5	21.7
Paving materials		2.1	1.8	1.8	2.0	2.7	3.4	3.4	3.4	3.3	2.8	2.6	2.7	2.1	2.5
Roofing materials		17.4	17.4	17.6	18.0	18.3	18.5	18.4	18.4	18.2	18.2	17.7	17.4	13.1	8.1
Rubber products [1]	195	198	204	208	210	212	210	208	203	203	200	207	211	194	121
Rubber tires and inner tubes		104.6	108.8	111.6	113.5	114.8	115.1	114.4	112.5	116.6	115.1	117.7	119.3	90.1	54.2
Rubber boots and shoes		22.1	22.6	22.8	22.5	22.5	22.0	21.7	31.0	18.9	20.1	21.4	22.8	23.8	14.8
Rubber goods, other		84.0	85.7	86.5	86.8	87.7	86.1	84.0	81.9	79.6	76.8	79.5	81.0	79.9	51.9
Miscellaneous industries [1]	432	436	447	445	443	459	466	459	447	435	426	436	441	445	244
Instruments (professional and scientific), and fire-control equipment		27.6	27.7	27.7	27.7	28.1	27.8	28.0	27.7	27.5	27.5	28.1	27.6	86.7	11.3
Photographic apparatus		38.4	38.8	39.0	38.9	39.2	38.8	38.7	38.2	38.3	38.3	37.4	36.7	35.5	17.7
Optical instruments and ophthalmic goods		27.0	27.2	27.4	27.8	28.0	27.6	27.5	27.5	27.6	27.9	28.9	29.4	33.3	11.9
Pianos, organs, and parts		13.2	14.6	15.7	16.8	17.6	17.8	17.4	16.5	14.6	14.9	15.2	15.1	12.2	7.8
Games, toys, and dolls		40.3	38.5	36.3	33.5	38.5	43.4	42.3	40.9	38.6	36.1	34.8	33.9	19.1	19.1
Buttons		13.1	13.8	13.4	13.3	13.4	12.7	12.1	11.6	11.4	10.7	11.8	12.3	13.1	11.2
Fire extinguishers		2.7	2.6	2.5	2.6	2.7	2.7	2.8	2.8	2.8	2.9	2.9	2.9	9.3	1.0

[1] Data are based upon reports from cooperating establishments covering both full- and part-time production and related workers who worked or received pay during any part of one pay period ending nearest the 15th of the month. Major industry groups have been adjusted to levels indicated by data through 1946 made available by the Federal Security Agency and are not comparable with data published in mimeographed releases dated prior to June 1948 or the Monthly Labor Review dated prior to July 1948. Comparable data from January 1939 are available upon request to the Bureau of Labor Statistics. Estimates have not been prepared for certain industries and since the individual industry data are not adjusted to the same levels of employment as are the groups, the sum of the individual industry estimates will not agree with the totals shown for the major industry groups. In the transportation equipment except automobiles, and the tobacco manufactures major industry groups, the individual industry data are adjusted to 1939 Census of Manufactures levels only; the remaining industries are adjusted to Federal Security Agency data through 1945. Data shown for the two most recent months are subject to revision without notation. Revised data in any column other than the first three are identified by an asterisk.

* Revised.

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TABLE A–6: Indexes of Production-Worker Employment in Manufacturing Industries [1]

[1939 average = 100]

Industry group and industry	1948					1947								An- nual aver- ages
	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	194
All manufacturing [1]	155.3	156.1	160.3	159.5	160.5	161.9	160.8	160.4	160.2	157.8	153.3	154.7	153.8	17
Durable goods [1]	183.6	185.1	188.1	185.8	188.2	188.8	186.8	185.0	183.6	181.5	178.7	183.9	182.0	20
Nondurable goods [1]	133.0	133.3	138.4	138.7	138.7	140.7	140.4	141.1	141.8	139.1	133.4	131.7	131.5	12
Durable goods														
Iron and steel and their products [1]	161.4	161.7	164.8	164.2	164.9	164.7	163.3	162.3	161.7	161.0	158.2	160.1	159.6	17
Blast furnaces, steel works, and rolling mills		131.8	132.9	130.9	131.0	130.4	130.2	130.0	130.0	130.9	129.5	129.0	127.3	13
Gray-iron and semisteel castings		177.9	183.0	184.0	183.9	183.0	181.8	181.7	180.6	182.6	181.7	184.8	185.6	14
Malleable-iron castings		193.6	197.0	196.7	197.2	195.5	191.1	187.7	185.1	184.4	175.5	185.2	180.2	14
Steel castings		214.1	216.3	214.2	211.3	208.9	207.3	206.7	206.7	204.5	199.8	204.1	207.2	28
Cast-iron pipe and fittings		156.1	160.8	159.1	162.9	163.4	160.6	159.5	157.8	156.4	154.0	155.8	156.2	10
Tin cans and other tinware		132.4	140.0	143.8	149.1	150.3	148.3	148.0	152.3	149.8	139.4	134.5	132.6	10
Wire drawn from purchased rods		137.1	139.4	140.5	142.7	143.7	141.8	141.0	138.8	140.2	139.1	141.1	120.4	16
Wirework		137.9	142.9	139.9	143.0	139.4	133.2	133.6	135.3	132.5	128.4	131.4	129.9	19
Cutlery and edge tools		158.4	160.6	159.4	160.3	162.2	161.0	158.9	154.7	151.2	139.8	152.6	167.0	14
Tools, (except edge tools, machine tools, files, and saws)		166.7	167.9	168.8	169.2	169.5	166.1	163.0	160.9	157.3	156.0	166.0	162.7	18
Hardware		148.6	152.5	151.7	149.4	147.5	143.4	141.1	138.4	135.6	137.6	140.0	141.5	12
Plumbers' supplies		150.3	153.2	152.6	152.5	152.5	150.9	147.4	146.2	146.7	146.0	148.7	153.5	9
Stoves, oil burners, and heating equipment, not elsewhere classified		158.2	169.1	175.9	180.0	184.9	186.2	185.2	183.7	175.8	168.2	171.6	171.4	12
Steam and hot-water heating apparatus and steam fittings		184.4	194.2	195.7	194.0	193.7	191.3	191.2	189.7	189.8	186.8	198.4	201.5	19
Stamped and enameled ware and galvanizing		189.6	192.8	194.6	195.2	198.0	196.8	194.9	193.9	189.1	184.6	187.4	190.3	16
Fabricated structural and ornamental metal-work		170.7	170.9	169.4	170.3	171.0	170.2	168.4	169.7	169.6	166.4	166.7	167.3	20
Metal doors, sash, frames, molding, and trim		130.6	135.4	131.2	139.3	141.0	138.3	135.8	132.8	130.6	123.8	121.8	117.9	16
Bolts, nuts, washers, and rivets		189.8	190.0	188.2	188.4	187.4	186.5	182.3	185.6	186.6	182.1	186.9	189.1	20
Forgings, iron and steel		223.9	228.8	229.5	231.0	228.3	225.0	223.8	221.6	221.0	219.0	223.1	219.3	26
Wrought pipe, welded and heavy-riveted		210.8	215.5	214.6	222.5	219.7	212.5	206.6	200.0	198.6	193.8	191.3	201.9	31
Screw-machine products and wood screws		204.4	203.9	203.2	200.1	198.7	196.8	196.4	195.9	196.3	199.6	207.0	209.1	29
Steel barrels, kegs, and drums		119.5	121.9	125.5	130.3	126.4	123.5	123.8	127.3	128.4	129.1	127.1	131.1	13
Firearms		395.1	390.0	383.9	375.4	369.8	361.6	357.4	347.6	343.3	362.2	357.4	356.3	1,34
Electrical machinery [1]	211.6	217.4	222.9	225.4	227.0	230.2	229.7	226.9	223.0	219.6	218.9	225.5	217.7	26
Electrical equipment		199.8	203.5	206.1	207.2	209.2	208.2	206.5	204.6	201.6	201.9	207.1	202.4	27
Radios and phonographs		212.2	221.9	225.5	228.0	238.2	241.7	237.0	226.3	220.0	212.1	223.5	233.6	39
Communication equipment		289.3	297.4	299.3	302.4	302.7	300.3	294.6	288.3	287.3	289.5	299.7	250.4	36
Machinery, except electrical [1]	228.5	227.4	233.1	234.0	233.0	233.8	230.5	229.7	228.8	226.8	221.7	228.5	230.2	24
Machinery and machine-shop products		238.8	240.9	242.2	240.9	240.3	239.5	240.2	240.2	238.4	236.4	241.4	242.3	28
Engines and turbines		289.1	293.3	291.6	292.9	292.4	283.9	285.8	286.6	287.0	284.6	284.9	293.1	42
Tractors		143.4	198.8	197.9	196.4	192.8	187.5	185.3	182.5	178.0	181.7	182.2	178.9	16
Agricultural machinery, excluding tractors		267.0	266.1	261.6	253.5	248.8	238.4	236.6	236.9	232.8	225.7	236.4	230.9	18
Machine tools		130.4	134.5	137.6	137.6	140.2	139.5	142.4	142.9	143.2	138.2	147.2	151.5	29
Machine-tool accessories		214.8	216.6	218.0	218.6	218.1	216.2	215.3	216.8	218.5	214.4	228.9	234.4	40
Textile machinery		188.3	187.6	186.2	185.8	185.3	181.9	179.3	170.5	166.1	166.3	177.9	176.6	13
Pumps and pumping equipment		280.9	286.8	293.5	293.9	292.7	290.3	290.5	297.3	294.7	298.0	309.7	310.9	37
Typewriters		148.7	153.5	154.9	158.8	159.5	155.5	152.7	149.4	145.8	89.2	112.8	147.8	7
Cash registers; adding and calculating machines		235.2	234.2	233.4	230.2	229.4	224.1	218.5	213.9	208.3	192.5	193.4	208.4	17
Washing machines, wringers, and driers, domestic		217.0	218.4	221.1	216.8	218.1	211.2	205.1	200.1	202.2	195.5	200.3	195.3	17
Sewing machines, domestic and industrial		175.9	174.8	172.5	171.0	170.1	165.7	160.2	154.6	153.7	152.9	137.3	135.4	13
Refrigerators and refrigeration equipment		227.3	230.1	232.2	234.9	231.8	227.7	226.6	225.0	223.7	219.6	224.4	212.9	15
Transportation equipment, except automobiles [1]	276.0	290.9	292.7	292.6	297.3	291.6	284.6	269.2	260.7	255.0	253.7	297.5	299.3	1,58
Locomotives		410.5	411.3	409.1	406.7	406.2	402.0	400.5	388.1	377.2	368.0	376.0	367.4	52
Cars, electric- and steam-railroad		220.2	221.8	220.2	228.0	231.8	231.4	225.2	225.7	222.8	224.8	223.9	224.9	24
Aircraft and parts, excluding aircraft engines		346.0	342.9	341.1	339.5	335.8	336.2	337.4	327.0	329.3	326.0	337.4	348.4	2,00
Aircraft engines		278.4	276.9	280.1	284.0	291.0	291.0	294.8	299.2	299.9	301.1	302.5	303.4	2,62
Shipbuilding and boatbuilding		176.8	181.6	184.4	191.9	181.5	169.9	144.7	134.3	125.8	126.6	202.7	202.7	1,76
Motorcycles, bicycles, and parts		206.0	211.7	209.4	207.6	210.1	207.0	201.8	200.0	195.3	186.0	190.8	183.6	14
Automobiles [1]	188.6	192.7	195.1	178.9	202.6	195.2	190.4	190.0	190.5	184.1	187.3	188.5	179.1	17
Nonferrous metals and their products [1]	173.7	176.9	180.0	178.5	178.4	180.3	178.8	176.3	174.7	172.8	171.4	178.0	182.5	19
Smelting and refining, primary, of nonferrous metals		148.4	147.8	145.4	144.5	144.6	143.7	143.9	144.0	144.4	147.7	146.2	144.2	20
Alloying; and rolling and drawing of nonferrous metals, except aluminum		138.3	140.6	136.9	138.2	137.5	136.3	136.6	136.9	137.6	140.0	148.4	155.0	19
Clocks and watches		140.7	141.9	141.1	140.8	140.8	139.9	138.6	137.0	134.2	122.4	135.7	136.9	12
Jewelry (precious metals) and jewelers' findings		187.6	191.0	190.4	189.3	191.6	194.6	190.2	182.9	177.0	171.0	175.5	177.4	14
Silverware and plated ware		226.8	226.5	223.1	221.0	223.5	218.8	215.3	210.2	205.7	195.5	200.5	199.9	12
Lighting equipment		152.7	161.7	165.4	164.1	166.6	167.3	170.2	171.7	172.3	177.7	180.9	184.3	13
Aluminum manufactures		187.7	192.1	192.0	192.2	190.1	185.4	183.0	179.9	174.0	170.0	185.2	197.4	33
Sheet-metal work, not elsewhere classified		192.0	196.4	196.9	199.0	209.9	209.1	207.1	200.3	200.8	200.7	205.8	202.9	20
Lumber and timber basic products [1]	182.8	178.7	178.3	175.0	175.6	178.4	178.5	178.6	177.3	177.3	171.5	172.9	168.8	12
Sawmills and logging camps		171.1	171.1	167.9	169.4	173.6	174.5	175.4	175.2	175.8	169.4	170.5	167.0	13
Planing and plywood mills		171.1	171.1	170.1	170.2	168.8	167.4	164.1	161.9	160.7	160.0	162.6	159.4	12

[1] See footnote 1, table A–5.

TABLE A–6: Indexes of Production-Worker Employment in Manufacturing Industries [1]—Continued

[1939 average=100]

Industry group and industry	1948					1947								Annual average
	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	1943
Durable goods—Continued														
Furniture and finished lumber products [1]	139.7	143.4	147.8	149.2	149.1	148.3	147.1	144.8	141.9	140.1	135.7	137.7	137.3	111.7
Mattresses and bedsprings	.....	159.4	168.8	176.7	177.1	175.8	174.9	170.3	162.3	153.5	139.2	145.7	145.2	105.9
Furniture	.....	134.7	138.8	140.2	139.8	138.7	136.9	134.1	131.0	129.4	125.9	127.6	127.0	112.4
Wooden boxes, other than cigar	.....	119.3	122.2	124.3	125.3	122.7	124.6	127.1	126.3	125.6	123.8	127.6	128.3	125.0
Caskets and other morticians' goods	.....	135.6	139.8	139.6	141.4	142.2	141.5	139.6	140.6	139.2	137.4	138.1	138.8	102.4
Wood preserving	.....	120.5	124.3	124.8	131.1	134.8	138.8	142.4	145.1	150.4	149.4	147.9	144.7	98.7
Wood, turned and shaped	.....	133.4	136.2	133.7	131.1	133.4	132.1	128.5	127.9	128.2	123.0	122.9	124.3	107.4
Stone, clay, and glass products [1]	154.7	153.7	153.9	150.9	151.6	154.7	154.0	152.8	152.3	151.2	146.5	150.4	148.9	122.5
Glass and glassware	.....	165.2	165.2	161.3	164.3	167.8	168.4	168.2	166.7	165.7	158.5	168.6	171.1	139.9
Glass products made from purchased glass	.....	123.4	124.8	123.8	125.0	127.1	125.8	122.0	120.1	120.2	123.5	124.3	127.6	113.1
Cement	.....	150.5	149.3	150.3	149.1	150.5	151.0	151.1	152.1	151.1	146.5	145.0	121.8	111.5
Brick, tile, and terra cotta	.....	131.1	130.1	126.9	131.4	131.4	130.6	130.2	129.8	129.4	126.3	125.8	124.3	90.5
Pottery and related products	.....	167.2	170.2	166.9	166.0	170.3	169.0	166.0	165.2	165.9	160.4	164.1	165.6	132.9
Gypsum	.....	132.8	134.3	133.8	132.7	134.6	132.4	128.7	124.2	123.5	124.2	121.7	115.2	91.2
Wallboard, plaster (except gypsum), and mineral wool	.....	153.5	153.1	154.1	155.7	156.9	156.4	151.2	149.4	145.3	141.3	137.6	135.9	137.2
Lime	.....	101.6	100.0	98.0	97.8	98.6	99.9	95.8	97.0	97.0	98.0	98.6	99.3	98.7
Marble, granite, slate, and other products	.....	96.6	99.3	96.5	97.5	99.0	100.1	99.2	99.9	99.4	90.5	88.9	89.5	67.4
Abrasives	.....	226.3	226.4	221.0	178.0	217.6	213.7	213.8	217.9	208.8	220.0	242.2	250.4	302.2
Asbestos products	.....	137.5	138.2	137.4	137.8	136.3	134.1	134.4	132.0	129.9	122.7	130.2	131.3	138.2
Nondurable goods														
Textile-mill products and other fiber manufactures [1]	113.0	113.7	114.7	114.2	113.0	112.7	111.1	109.2	106.9	105.1	103.8	105.6	107.2	108.2
Cotton manufactures, except smallwares	.....	125.8	126.6	125.6	125.2	125.1	123.6	121.5	119.3	118.1	117.7	119.9	121.7	125.8
Cotton smallwares	.....	103.6	105.8	105.8	103.8	101.8	98.6	97.2	95.2	93.3	93.3	97.2	103.6	126.6
Silk and rayon goods	.....	88.2	88.1	87.6	84.9	85.5	84.4	83.5	81.6	80.2	79.0	80.3	81.5	82.2
Woolen and worsted manufactures, except dyeing and finishing	.....	111.0	113.1	113.9	112.5	112.4	110.5	108.4	107.0	103.3	100.3	103.3	104.2	110.4
Hosiery	.....	82.8	84.1	83.5	82.8	82.3	81.1	79.4	77.5	76.3	74.9	74.0	76.7	74.9
Knitted cloth	.....	101.9	101.4	101.8	100.4	99.9	99.4	97.1	95.2	94.2	89.6	91.1	93.2	109.4
Knitted outerwear and knitted gloves	.....	104.4	106.4	106.0	102.9	105.5	105.5	103.5	99.5	94.0	90.7	94.2	99.7	117.2
Knitted underwear	.....	122.7	123.5	122.2	120.6	120.0	117.5	115.3	111.9	110.5	107.0	107.5	106.2	110.4
Dyeing and finishing textiles, including woolen and worsted	.....	125.0	125.2	125.8	124.4	123.8	121.6	120.5	117.6	114.9	113.5	118.0	119.2	113.6
Carpets and rugs, wool	.....	135.4	135.5	134.0	132.2	130.9	127.1	124.4	121.7	119.7	117.9	118.2	117.3	90.8
Hats, fur-felt	.....	82.7	89.3	89.0	89.1	89.7	88.5	88.4	85.8	86.3	83.3	85.0	82.9	71.3
Jute goods, except felts	.....	112.8	109.3	110.3	105.1	80.6	79.4	79.5	76.6	78.1	107.5	111.0	113.3	110.6
Cordage and twine	.....	130.9	134.1	134.7	131.6	128.8	125.7	120.4	115.3	116.5	116.0	121.1	123.7	143.4
Apparel and other finished textile products [1]	137.1	139.8	147.5	147.7	145.3	144.8	141.5	142.7	138.9	135.6	125.7	125.7	125.4	121.4
Men's clothing, not elsewhere classified	.....	135.0	137.0	135.5	134.2	135.2	134.7	133.6	130.4	128.3	121.1	123.9	122.2	115.8
Shirts, collars, and nightwear	.....	110.9	111.2	110.8	110.4	111.4	109.7	107.2	104.4	101.6	96.9	100.5	98.9	90.9
Underwear and neckwear, men's	.....	110.4	112.0	110.3	106.6	108.8	106.5	102.3	101.1	97.9	91.0	99.2	102.4	96.3
Work shirts	.....	126.3	123.7	119.0	112.0	109.8	109.4	112.1	112.4	110.7	99.1	102.1	108.2	131.3
Women's clothing, not elsewhere classified	.....	153.7	168.3	169.5	166.4	164.4	158.0	161.5	158.0	153.9	139.8	135.9	136.0	120.6
Corsets and allied garments	.....	102.4	106.1	107.0	104.9	104.4	103.3	100.2	96.5	93.4	90.1	94.2	94.2	88.1
Millinery	.....	91.6	108.1	109.2	103.4	92.0	84.7	98.9	93.4	92.6	80.4	79.3	79.3	91.5
Handkerchiefs	.....	99.8	99.6	97.9	95.7	101.1	102.2	100.9	98.3	90.6	82.9	90.8	93.1	113.1
Curtains, draperies, and bedspreads	.....	157.7	172.1	190.5	178.0	181.3	180.9	173.7	161.4	153.9	130.4	126.9	124.7	141.9
Housefurnishings, other than curtains, etc	.....	258.9	272.0	261.5	268.6	274.3	268.7	283.4	274.0	263.5	238.2	256.2	262.0	214.9
Textile bags	.....	212.4	216.9	220.2	223.7	226.8	225.3	222.6	220.1	216.5	213.0	214.6	220.6	155.7
Leather and leather products [1]	103.7	107.1	114.1	115.8	114.9	115.3	114.1	113.2	112.2	111.1	107.5	106.6	106.1	98.1
Leather	.....	88.5	91.6	93.6	93.5	93.8	93.7	93.7	93.3	91.9	90.7	91.0	91.6	92.9
Boot and shoe cut stock and findings	.....	88.7	94.7	97.8	98.8	99.4	99.0	98.1	96.9	96.3	94.4	90.1	91.7	96.0
Boots and shoes	.....	92.2	99.4	101.0	100.4	100.2	98.5	97.8	97.5	96.7	93.9	92.9	92.1	89.0
Leather gloves and mittens	.....	125.9	125.4	124.9	121.9	130.1	131.8	131.5	128.1	126.8	118.9	121.0	120.4	153.7
Trunks and suitcases	.....	160.1	166.4	168.6	159.3	170.1	177.9	172.5	162.6	153.1	141.0	147.0	145.8	161.2
Food [1]	127.1	122.6	134.5	135.6	139.3	146.9	150.7	158.3	173.6	168.8	153.4	139.5	134.8	123.5
Slaughtering and meat packing	.....	73.9	134.0	138.5	145.7	150.8	142.0	135.5	134.7	135.5	135.0	130.6	128.0	128.9
Butter	.....	175.3	162.8	158.8	162.0	163.6	168.2	172.9	178.0	188.0	192.7	190.9	185.9	165.2
Condensed and evaporated milk	.....	188.3	177.2	172.5	169.3	170.6	179.7	188.9	194.5	208.8	216.3	216.3	205.7	182.6
Ice cream	.....	153.9	138.5	133.8	133.7	141.4	149.1	157.8	176.8	185.9	189.4	187.8	170.6	130.7
Flour	.....	134.7	136.0	137.5	141.3	141.9	143.1	143.3	140.4	141.6	142.0	136.4	133.0	118.5
Feeds, prepared	.....	153.9	152.0	158.7	169.4	168.4	165.3	167.7	171.2	173.1	171.4	168.0	159.1	145.0
Cereal preparations	.....	146.4	144.7	147.8	145.0	144.3	153.7	153.6	168.0	169.7	156.5	146.2	142.3	136.0
Baking	.....	114.3	115.4	114.1	113.1	116.0	118.1	117.9	115.5	114.5	113.7	112.0	111.0	111.0
Sugar refining, cane	.....	112.7	123.2	127.2	116.2	126.2	131.1	129.0	131.3	131.2	130.9	128.3	123.9	105.1
Sugar, beet	.....	46.9	48.4	56.3	91.5	179.7	225.5	226.4	102.9	90.2	69.7	61.6	56.0	86.8
Confectionery	.....	109.0	118.3	126.2	134.1	141.2	142.7	137.2	122.6	112.8	103.9	108.0	111.2	106.7
Beverages, nonalcoholic	.....	151.3	143.6	134.9	140.1	139.7	143.8	150.4	164.9	166.4	149.1	135.0	125.8	135.1
Malt liquors	.....	172.4	167.0	165.5	168.2	172.4	181.3	184.6	188.4	187.9	182.8	174.6	165.4	134.1
Canning and preserving	.....	84.3	81.2	82.1	85.5	99.1	114.4	159.8	255.7	232.7	163.8	103.3	90.3	125.4
Tobacco manufactures [1]	90.5	92.3	93.4	93.9	93.6	94.4	96.5	95.1	92.3	91.6	89.8	90.2	88.4	97.2
Cigarettes	.....	121.0	121.0	122.1	122.6	124.5	124.0	121.7	118.7	120.0	120.1	121.5	119.8	123.8
Cigars	.....	78.3	80.0	80.1	79.4	79.0	82.9	81.7	79.1	77.3	74.5	74.7	72.7	83.9
Tobacco (chewing and smoking) and snuff	.....	74.6	74.7	75.7	76.3	79.4	78.9	79.4	77.4	76.8	74.9	74.1	73.2	91.2

See footnote 1, table A–5.

TABLE A–6: Indexes of Production-Worker Employment in Manufacturing Industries [1]—Continued

[1939 average=100]

Industry group and industry	1948					1947								Annual average
	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	1942
Nondurable goods—Continued														
Paper and allied products [1]	146.4	146.8	148.0	147.8	148.7	149.9	148.6	147.8	146.2	145.7	143.3	146.1	146.1	122.2
Paper and pulp	.....	145.3	145.5	144.9	145.0	144.8	143.4	142.9	142.9	142.7	140.9	141.3	140.3	116.3
Paper goods, other	.....	150.4	152.0	151.9	153.6	156.6	155.9	155.3	151.9	150.3	149.5	153.6	153.4	133.1
Envelopes	.....	145.6	145.7	143.9	142.0	142.6	142.5	140.6	137.4	136.0	132.7	136.6	137.6	116.9
Paper bags	.....	162.3	164.1	162.0	163.2	163.9	161.3	160.7	159.2	161.6	160.5	164.0	168.1	118.0
Paper boxes	.....	133.7	137.3	139.1	140.8	143.7	142.7	141.5	138.5	137.9	133.6	139.9	141.6	129.3
Printing, publishing, and allied industries [1]	132.2	131.8	132.8	133.5	134.0	135.7	135.4	134.6	133.2	132.3	131.2	131.5	131.0	100.8
Newspapers and periodicals	.....	122.5	122.0	121.4	121.0	122.7	122.2	121.8	121.7	120.5	119.8	119.7	119.0	95.2
Printing: book and job	.....	137.4	139.1	140.8	142.3	143.7	142.6	141.6	139.1	137.7	138.2	137.8	137.2	108.7
Lithographing	.....	119.0	119.5	121.2	121.7	125.3	125.8	124.2	123.4	124.0	119.8	123.3	124.6	98.5
Bookbinding	.....	139.5	144.5	145.1	145.9	148.8	150.3	149.3	148.1	148.7	143.6	145.6	145.3	114.1
Chemicals and allied products [1]	198.4	201.4	203.6	204.2	204.1	205.4	204.5	203.2	199.9	195.3	195.0	194.6	199.5	254.5
Paints, varnishes, and colors	.....	177.1	179.4	182.1	179.3	178.9	177.7	176.5	175.4	173.4	171.9	176.7	178.0	135.1
Drugs, medicines, and insecticides	.....	233.2	236.9	238.3	238.5	239.2	241.3	243.7	243.6	240.5	242.1	246.4	250.4	203.6
Perfumes and cosmetics	.....	107.2	111.0	116.2	115.4	123.6	133.1	129.9	121.3	116.5	112.2	115.5	114.4	135.8
Soap	.....	142.9	163.1	166.3	167.0	167.4	168.9	165.7	161.7	157.0	157.2	159.4	155.6	117.1
Rayon and allied products	.....	131.4	131.8	131.8	130.8	131.4	130.5	130.1	128.4	126.4	126.1	108.6	126.8	111.7
Chemicals, not elsewhere classified	.....	283.2	280.8	281.0	282.8	283.3	280.9	278.9	279.0	280.8	282.8	284.3	280.9	206.7
Explosives and safety fuses	.....	303.7	306.8	303.3	301.3	300.7	298.0	293.6	291.4	290.1	269.1	290.3	291.0	1,536.9
Compressed and liquefied gases	.....	252.4	250.1	246.2	249.9	248.8	244.9	243.5	249.0	253.2	246.8	248.8	241.8	197.3
Ammunition, small-arms	.....	182.9	182.8	182.2	*178.7	172.7	168.7	167.2	163.5	103.8	160.9	164.6	162.6	3,395.4
Fireworks	.....	209.3	203.9	221.8	213.4	243.5	249.0	249.9	214.0	177.5	207.6	249.8	255.2	2,425.5
Cottonseed oil	.....	99.5	115.0	127.7	142.1	159.5	160.5	157.2	119.8	85.9	76.0	77.7	86.0	133.4
Fertilizers	.....	177.4	184.4	171.5	161.3	148.7	141.6	142.1	142.0	133.4	126.2	132.6	157.8	146.2
Products of petroleum and coal [1]	157.3	154.9	155.4	153.9	155.0	155.5	156.1	155.8	156.4	157.0	156.2	153.5	151.9	117.6
Petroleum refining	.....	151.5	151.3	149.5	149.9	150.1	149.8	149.8	151.4	152.8	152.6	150.1	148.6	113.4
Coke and byproducts	.....	137.0	141.1	139.6	140.6	138.3	138.2	136.5	135.1	134.7	133.7	133.0	131.1	117.4
Paving materials	.....	87.4	75.3	73.2	83.2	109.4	138.1	137.4	140.0	133.9	114.0	106.3	110.2	87.0
Roofing materials	.....	214.6	215.3	217.5	222.7	226.2	228.0	227.7	226.8	224.9	225.3	218.0	214.3	161.2
Rubber products [1]	160.8	163.8	168.9	172.0	173.5	175.3	174.0	171.7	168.1	167.9	165.1	170.9	174.6	160.3
Rubber tires and inner tubes	.....	192.9	200.7	205.8	209.2	211.7	212.2	211.0	207.5	214.9	212.3	217.0	220.0	166.1
Rubber boots and shoes	.....	149.0	152.4	153.8	151.5	151.4	147.9	146.1	141.6	127.2	135.1	143.9	153.6	160.5
Rubber goods, other	.....	161.9	165.3	166.9	167.4	169.1	166.0	162.0	157.8	153.5	148.0	153.2	156.3	154.1
Miscellaneous industries [1]	176.6	178.4	182.6	181.9	180.9	187.5	190.4	187.5	182.8	177.7	174.1	178.4	180.3	181.7
Instruments (professional and scientific), and fire-control equipment	.....	244.1	244.6	245.2	245.3	248.1	246.1	247.4	245.0	243.4	243.1	248.1	244.4	766.4
Photographic apparatus	.....	217.1	219.8	220.9	220.4	221.8	219.5	218.8	216.1	216.5	217.0	211.3	207.6	200.9
Optical instruments and ophthalmic goods	.....	226.9	229.1	230.0	233.6	235.4	232.1	231.6	231.6	231.8	234.6	242.7	247.1	280.3
Pianos, organs, and parts	.....	169.0	188.0	201.5	215.2	226.3	228.6	223.8	211.4	187.2	191.6	195.1	193.5	156.2
Games, toys, and dolls	.....	210.7	201.2	189.9	175.0	201.3	226.9	221.4	213.9	202.1	188.8	182.0	177.3	99.7
Buttons	.....	116.3	122.6	119.4	118.7	119.1	113.0	107.7	103.4	101.9	95.4	104.7	109.1	116.6
Fire extinguishers	.....	266.8	258.6	249.3	253.5	268.0	269.5	273.2	277.6	277.3	284.9	289.0	283.4	913.1

[1] See footnote 1, table A–5.
*Revised.

TABLE A–7: Indexes of Production-Worker Weekly Pay Rolls in Manufacturing Industries [1]

[1939 average=100]

Industry group and industry	1948					1947								Annual average
	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	1942
All manufacturing [1]	345.9	346.5	358.2	354.1	358.7	365.7	353.4	350.1	345.3	331.5	321.8	327.2	319.3	334.4
Durable goods [1]	389.5	392.2	401.7	393.1	403.1	411.0	395.0	389.9	282.2	366.8	359.4	375.5	363.0	469.3
Nondurable goods [1]	303.2	301.8	315.7	316.0	315.3	321.4	312.8	311.2	309.2	297.0	285.1	280.0	276.6	202.3
Durable goods														
Iron and steel and their products [1]	334.4	329.6	340.8	337.6	341.9	345.8	335.1	331.6	327.7	316.8	307.2	319.2	310.2	311.4
Blast furnaces, steel works, and rolling mills	.....	253.0	260.9	257.5	261.2	257.8	255.1	251.9	254.5	254.2	237.6	249.1	237.9	222.3
Gray-iron and semisteel castings	.....	394.6	421.7	414.9	416.4	420.7	399.3	406.7	403.0	384.1	396.3	411.8	410.4	261.1
Malleable-iron castings	.....	453.0	469.7	467.6	480.1	479.8	459.6	448.7	425.9	392.1	397.2	414.7	408.5	278.9
Steel castings	.....	453.2	456.8	442.3	442.1	443.3	429.5	423.1	414.2	396.9	398.7	406.6	399.6	493.1
Cast-iron pipe and fittings	.....	360.5	385.2	375.4	394.4	404.0	381.4	382.3	366.6	352.5	365.6	392.8	391.0	177.2
Tin cans and other tinware	.....	274.9	289.8	302.4	320.0	336.7	320.7	331.9	349.2	334.9	297.6	265.9	252.2	161.0
Wire drawn from purchased rods	.....	255.3	269.1	268.7	271.6	280.3	270.1	267.6	259.5	254.3	240.4	265.9	220.8	255.3
Wirework	.....	302.0	316.4	309.0	320.5	321.9	297.4	289.0	290.1	271.6	264.0	272.5	257.3	202.6
Cutlery and edge tools	.....	375.4	381.6	377.2	381.9	386.3	384.1	372.2	359.1	333.3	314.2	352.9	373.0	279.1

[1] See footnote 1, table A–5.

TABLE A–7: Indexes of Production-Worker Weekly Pay Rolls in Manufacturing Industries [1]—Con.

[1939 average=100]

Industry group and industry	1948					1947								Annual average
	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	1943
Durable goods—Continued														
Iron and steel and their products [1]—Continued														
Tools (except edge tools, machine tools, files, and saws)		372.4	378.4	379.0	381.0	381.0	363.0	352.6	347.9	329.6	318.1	350.6	342.4	334.1
Hardware		342.2	355.1	353.5	352.5	345.9	328.7	321.2	308.4	291.8	300.2	307.3	308.4	245.8
Plumbers' supplies		322.2	329.0	320.3	321.8	331.9	324.1	306.8	291.6	278.6	291.4	291.7	289.3	161.7
Stoves, oil burners, and heating equipment, not elsewhere classified		345.4	368.6	387.2	395.8	422.7	404.5	417.6	399.3	355.9	346.6	355.9	351.4	210.9
Steam and hot-water heating apparatus and steam fittings		392.1	416.5	425.1	403.7	430.9	419.4	403.0	394.1	365.8	373.8	404.9	393.9	360.6
Stamped and enameled ware and galvanizing		439.8	447.0	447.4	456.0	472.8	453.7	445.2	437.1	415.0	402.9	411.5	414.8	307.0
Fabricated structural and ornamental metalwork		340.6	343.4	335.4	339.7	360.1	350.5	347.7	339.4	339.3	320.1	328.2	317.4	364.3
Metal doors, sash, frames, molding, and trim		283.9	292.2	276.9	296.7	313.2	298.1	290.0	280.3	266.4	244.5	254.3	249.7	292.6
Bolts, nuts, washers, and rivets		416.7	422.4	406.0	393.1	406.0	391.5	386.0	369.4	367.3	355.1	383.0	380.7	382.0
Forgings, iron and steel		467.6	487.5	496.2	502.4	506.9	484.8	485.5	456.3	419.0	427.2	454.9	436.1	507.9
Wrought pipe, welded and heavy-riveted		437.7	455.3	433.2	457.2	472.7	443.1	427.3	396.6	388.7	387.8	377.8	380.0	610.9
Screw-machine products and wood screws		452.0	456.5	452.1	446.1	442.9	421.7	424.3	413.4	402.6	414.5	436.2	436.3	560.4
Steel barrels, kegs, and drums		298.1	302.0	300.5	333.7	334.0	308.6	299.6	325.6	317.6	317.2	316.2	316.1	247.0
Firearms		906.0	911.3	872.2	846.7	835.0	796.1	780.3	766.9	734.8	776.8	777.9	761.2	2,934.8
Electrical machinery [1]	431.6	444.3	459.1	465.1	471.0	481.2	471.9	464.6	450.5	428.1	430.0	440.5	414.4	488.0
Electrical equipment		408.1	419.6	424.0	430.6	434.3	423.9	417.8	411.0	393.7	396.3	408.6	389.6	475.6
Radios and phonographs		468.5	488.4	495.6	507.3	542.9	539.6	533.2	501.9	459.7	460.8	464.5	491.1	505.0
Communication equipment		551.2	578.6	593.7	586.4	604.6	597.8	584.5	551.1	523.8	521.3	530.2	415.6	538.2
Machinery, except electrical [1]	466.4	463.8	475.2	471.9	473.8	479.9	459.6	458.0	451.4	434.5	427.4	443.0	437.7	443.7
Machinery and machine-shop products		493.6	496.4	495.5	494.9	500.7	481.5	480.0	477.9	462.1	456.2	470.6	463.4	501.8
Engines and turbines		611.7	632.3	622.1	625.5	607.4	601.9	576.0	591.3	597.2	578.6	588.5	587.1	849.4
Tractors		248.9	353.8	351.9	354.3	347.0	336.9	333.1	322.2	306.5	314.2	313.9	304.9	256.7
Agricultural machinery, excluding tractors		571.9	576.8	550.5	534.9	522.7	482.5	504.6	494.1	471.5	462.8	475.4	440.8	298.6
Machine tools		240.2	249.2	254.4	250.1	262.2	253.3	257.5	257.4	253.6	242.3	264.8	265.4	503.9
Machine-tool accessories		392.6	388.9	398.0	398.6	397.7	380.2	379.0	380.5	362.9	361.7	391.4	398.1	671.1
Textile machinery		436.0	437.8	420.9	417.9	412.2	396.3	381.7	366.0	330.2	348.9	372.2	366.2	230.1
Pumps and pumping equipment		610.0	617.7	627.0	622.0	628.1	607.7	611.1	627.1	609.6	614.1	632.7	627.0	761.8
Typewriters		336.8	347.5	357.6	366.1	369.6	358.2	342.3	321.6	309.6	186.9	237.3	311.3	143.8
Cash registers; adding, and calculating machines		504.7	499.9	489.0	491.9	490.7	463.5	455.8	441.9	405.2	378.0	398.7	420.2	341.6
Washing machines, wringers, and driers, domestic		465.3	454.0	470.4	464.3	484.2	449.7	430.5	400.0	393.3	395.5	407.6	395.4	301.5
Sewing machines, domestic and industrial		409.9	414.5	404.0	397.9	398.8	382.1	369.9	348.2	323.2	331.1	299.9	282.1	282.3
Refrigerators and refrigeration equipment		450.4	453.9	433.7	479.2	465.9	434.3	446.6	426.6	408.7	426.3	431.1	397.3	264.5
Transportation equipment, except automobiles [1]	566.4	601.4	600.4	593.3	611.2	600.2	555.1	541.5	509.8	492.4	492.5	571.1	572.1	3,080.3
Locomotives		916.8	908.6	869.2	883.0	900.3	863.1	870.1	875.3	811.9	760.3	774.7	757.0	1,107.3
Cars, electric- and steam-railroad		484.9	490.3	479.5	500.6	522.4	503.5	493.6	468.8	436.3	482.1	471.1	465.2	457.9
Aircraft and parts, excluding aircraft engines		695.2	675.9	667.3	657.4	668.7	653.8	663.8	623.3	637.6	622.4	621.5	639.2	3,496.3
Aircraft engines		481.0	473.9	469.4	482.9	503.5	479.2	499.9	501.3	486.7	485.1	481.5	477.0	4,528.7
Shipbuilding and boatbuilding		373.6	383.7	385.4	416.7	378.9	316.6	289.9	262.0	241.8	243.1	394.3	395.0	3,594.7
Motorcycles, bicycles, and parts		418.2	426.6	420.6	414.5	448.2	441.3	430.8	404.9	392.8	379.4	383.6	363.1	253.6
Automobiles [1]	357.6	382.5	394.4	357.6	408.7	427.7	395.6	385.8	380.6	345.1	355.3	363.6	335.0	321.2
Nonferrous metals and their products [1]	363.4	368.3	377.1	372.9	372.7	377.8	367.3	359.3	349.5	335.3	332.1	352.0	354.8	354.5
Smelting and refining, primary, of nonferrous metals		314.1	307.2	303.7	303.1	299.9	300.3	296.0	302.5	292.4	299.4	298.8	287.4	353.9
Alloying; and rolling and drawing of nonferrous metals, except aluminum		271.7	283.5	273.2	273.4	271.9	263.7	260.6	257.6	250.9	262.7	282.1	285.4	353.4
Clocks and watches		336.8	339.1	333.4	326.2	333.3	330.5	320.1	311.7	293.1	264.3	302.0	298.1	238.4
Jewelry (precious metals) and jewelers' findings		377.7	391.8	396.2	383.4	415.6	403.6	393.4	360.2	321.2	297.0	323.8	330.1	211.8
Silverware and plated ware		529.4	543.3	525.6	520.5	535.5	507.4	496.2	480.6	441.7	431.0	443.8	438.7	212.8
Lighting equipment		308.3	328.4	333.7	337.8	343.0	333.9	333.8	325.9	318.5	320.4	343.9	351.4	240.4
Aluminum manufactures		356.8	362.0	366.8	371.3	364.7	351.7	345.5	325.5	311.8	301.6	332.3	350.5	591.6
Sheet-metal work, not elsewhere classified		417.8	433.0	429.7	436.8	459.8	438.0	441.6	419.0	420.0	417.6	428.3	415.8	357.6
Lumber and timber basic products [1]	452.6	425.2	427.6	417.2	413.5	431.8	429.1	427.2	427.4	429.7	394.2	409.8	383.3	215.1
Sawmills and logging camps		405.2	412.4	401.1	400.3	422.0	425.3	425.2	430.5	435.3	397.4	412.2	384.7	238.3
Planing and plywood mills		412.9	403.8	402.5	398.7	403.6	385.5	381.2	368.1	365.8	345.1	366.5	350.5	197.8
Furniture and finished lumber products [1]	325.6	333.0	349.2	350.2	352.2	355.7	343.0	338.8	324.3	311.6	298.6	308.0	302.1	183.9
Mattresses and bedsprings		336.4	363.2	385.0	388.3	395.0	372.6	378.7	356.0	323.0	287.3	291.6	282.0	165.7
Furniture		314.6	330.9	333.6	333.4	334.3	323.2	315.0	297.9	284.7	274.4	284.7	278.9	185.3
Wooden boxes, other than cigar		286.4	300.1	292.2	304.2	312.1	301.9	308.8	305.0	304.7	301.8	313.4	304.0	215.8
Caskets and other morticians' goods		277.6	292.1	291.0	294.9	299.6	287.3	281.4	283.4	271.6	260.6	275.8	278.0	159.3
Wood preserving		316.1	310.5	292.1	330.4	347.2	353.0	384.2	393.7	404.2	392.7	391.2	387.6	181.9
Wood, turned and shaped		310.4	317.4	307.3	298.3	305.3	290.8	287.8	281.2	281.4	268.5	272.3	274.9	175.5
Stone, clay, and glass products [1]	343.4	337.9	336.6	321.4	322.9	335.7	331.2	328.2	320.2	315.5	298.8	311.5	299.5	189.1
Glass and glassware		355.3	358.2	340.0	343.4	356.5	357.2	351.2	342.8	334.1	312.8	341.1	333.0	208.3
Glass products made from purchased glass		259.9	267.6	267.0	271.6	287.1	269.4	264.0	251.5	246.4	247.2	259.5	259.4	165.9
Cement		300.4	290.7	286.1	284.7	291.3	294.0	294.7	298.3	297.0	283.5	278.9	202.5	156.5
Brick, tile, and terra cotta		305.6	297.1	279.0	296.9	301.9	296.7	300.2	294.1	289.1	276.4	278.9	276.4	135.8
Pottery and related products		348.7	352.9	337.4	337.8	354.4	349.8	342.7	326.5	330.4	308.6	322.4	323.8	191.9

[1] See footnote 1, table A–5.

TABLE A–7: Indexes of Production-Worker Weekly Pay Rolls in Manufacturing Industries [1]—Con.

[1939 average=100]

Industry group and industry	1948					1947								Annual average
	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	1943
Durable goods—Continued														
Stone, clay, and glass products [1]—Continued														
Gypsum		298.6	285.4	278.4	283.0	290.2	284.5	278.1	258.3	260.4	260.2	243.6	228.4	151.7
Wallboard, plaster (except gypsum), and mineral wool		396.4	390.1	375.5	374.1	386.5	381.5	368.4	357.8	353.9	333.6	327.6	315.6	223.8
Lime		273.3	262.1	243.8	249.5	256.9	259.5	258.9	245.5	243.3	237.7	244.6	239.2	171.6
Marble, granite, slate, and other products		176.6	179.3	169.5	173.5	183.3	175.9	183.5	180.9	176.4	156.7	155.3	158.7	90.8
Abrasives		474.9	487.0	457.4	363.2	462.1	418.2	408.0	498.2	375.6	386.0	413.8	440.6	480.2
Asbestos products		328.9	327.0	322.3	325.0	318.7	313.6	305.6	299.2	301.7	293.2	305.2	299.8	254.6
Nondurable goods														
Textile-mill products and other fiber manufactures [1]	303.8	307.1	315.6	310.6	303.0	302.0	288.2	271.8	262.9	246.2	243.7	248.6	254.5	178.9
Cotton manufactures, except smallwares		374.7	385.1	377.0	378.7	376.4	362.1	329.1	317.4	305.7	302.6	307.5	317.3	215.9
Cotton smallwares		243.0	249.1	249.3	243.8	234.1	215.1	213.6	210.6	195.4	200.5	204.9	222.1	214.6
Silk and rayon goods		267.4	267.8	262.4	252.6	248.1	236.6	227.6	220.2	208.5	203.0	206.0	212.9	138.6
Woolen and worsted manufactures, except dyeing and finishing		308.6	322.1	321.1	292.0	294.4	276.6	270.4	268.5	233.6	243.0	252.5	252.6	199.5
Hosiery		189.2	197.6	190.5	188.8	193.5	186.4	177.2	166.4	158.6	148.5	143.2	152.6	109.6
Knitted cloth		237.1	243.3	242.6	236.5	231.6	221.7	214.4	207.8	204.1	192.8	192.7	196.7	174.7
Knitted outerwear and knitted gloves		242.8	249.9	250.3	234.3	241.6	243.0	237.0	215.3	200.6	188.4	199.3	213.1	192.7
Knitted underwear		320.3	323.7	311.0	306.6	306.9	295.4	282.8	274.3	258.0	250.2	253.5	252.9	182.3
Dyeing and finishing textiles, including woolen and worsted		305.6	308.8	311.2	304.1	298.1	279.8	271.3	269.5	248.7	241.1	260.8	260.3	174.9
Carpets and rugs, wool		324.2	327.9	321.8	316.8	311.6	297.6	288.7	276.5	246.3	254.6	251.6	245.7	145.2
Hats, fur-felt		176.4	197.5	202.2	195.8	202.1	181.9	185.9	177.2	171.4	171.8	180.5	168.7	121.9
Jute goods, except felts		275.9	264.2	265.7	250.1	175.4	170.1	168.7	163.7	162.0	232.2	260.0	271.8	196.4
Cordage and twine		311.4	330.4	337.6	330.6	320.0	300.6	282.0	258.6	256.0	252.7	259.8	271.3	240.3
Apparel and other finished textile products [1]	297.9	306.5	343.2	345.2	337.0	327.3	304.8	320.5	303.8	288.4	266.2	262.3	259.8	185.2
Men's clothing, not elsewhere classified		317.1	324.8	316.4	313.4	309.5	301.5	303.5	284.9	264.8	260.0	273.0	270.5	174.9
Shirts, collars, and nightwear		274.6	279.7	272.0	273.0	281.3	266.0	258.9	243.2	225.5	219.3	229.0	228.8	143.6
Underwear and neckwear, men's		297.5	313.7	300.0	292.0	304.0	292.9	280.2	261.3	240.7	230.8	248.3	249.9	166.5
Work shirts		315.8	302.5	284.6	247.5	248.2	253.1	262.0	266.9	263.6	247.2	237.5	253.6	220.4
Women's clothing, not elsewhere classified		307.1	376.4	387.1	374.8	355.9	319.3	349.5	334.7	323.1	283.1	264.1	260.3	184.4
Corsets and allied garments		229.1	241.6	237.7	234.5	230.5	226.8	219.0	205.4	194.7	187.4	200.4	198.0	137.1
Millinery		172.4	214.1	238.5	204.4	157.4	123.6	195.2	173.1	171.2	145.5	128.4	119.2	123.3
Handkerchiefs		251.5	259.4	243.4	222.5	251.2	260.4	251.4	239.4	210.6	196.7	207.4	221.7	184.6
Curtains, draperies, and bedspreads		348.2	397.0	431.4	414.9	424.7	422.2	412.1	371.9	334.7	283.9	253.9	257.4	230.2
Housefurnishings, other than curtains, etc		577.2	609.2	572.9	597.8	653.1	590.1	632.2	604.6	573.5	496.7	553.4	560.8	370.3
Textile bags		446.4	449.3	461.7	481.1	492.9	484.8	472.6	458.8	443.6	438.2	422.4	427.8	233.0
Leather and leather products [1]	216.5	227.1	251.7	262.5	258.7	259.6	2b2.5	251.8	248.1	235.8	229.0	225.9	220.9	154.2
Leather		184.1	192.1	201.6	200.3	203.0	199.8	199.1	198.5	189.8	187.2	185.2	183.7	140.6
Boot and shoe cut stock and findings		173.4	187.9	198.6	201.4	202.6	190.3	189.6	191.4	189.8	182.4	172.9	170.0	142.2
Boots and shoes		198.1	225.6	235.9	233.8	231.9	223.5	223.8	221.5	209.9	204.8	201.7	197.0	142.0
Leather gloves and mittens		250.2	252.8	252.2	245.3	262.4	264.1	267.5	253.5	242.3	227.2	226.9	223.4	239.4
Trunks and suitcases		347.2	364.1	366.9	321.6	369.3	406.0	381.8	335.9	309.1	274.3	298.1	281.6	240.3
Food [1]	278.4	266.5	285.8	288.5	296.6	321.9	323.5	332.8	356.1	349.3	317.1	286.7	270.4	180.9
Slaughtering and meat packing		178.4	276.6	263.3	304.2	338.9	317.4	271.7	271.9	270.0	280.9	259.9	249.4	188.6
Butter		362.0	330.3	332.7	330.3	342.2	346.0	353.4	364.8	391.3	387.7	391.5	365.6	231.0
Condensed and evaporated milk		438.1	403.0	388.1	369.8	364.0	377.8	402.5	419.8	446.0	470.6	474.1	440.9	268.5
Ice cream		286.4	261.3	250.9	248.0	258.5	269.9	288.5	326.2	346.0	343.7	335.0	295.9	170.6
Flour		286.8	275.8	298.3	305.9	319.4	336.9	336.4	334.7	336.1	326.1	302.4	274.8	182.9
Feeds, prepared		337.1	329.6	314.7	379.0	381.4	346.9	358.6	382.9	364.1	366.8	359.5	326.7	230.0
Cereal preparations		313.0	297.8	322.2	307.8	306.3	313.7	304.4	337.5	361.2	329.9	290.9	277.5	223.3
Baking		227.6	227.1	234.1	221.5	229.2	227.8	230.8	223.2	218.4	218.0	213.1	208.4	153.0
Sugar refining, cane		229.1	248.4	232.3	216.9	248.9	302.3	279.1	278.7	284.2	275.0	279.2	229.4	152.8
Sugar, beet		96.7	98.9	126.7	188.0	392.8	516.8	464.0	214.3	286.7	131.3	118.6	99.6	119.6
Confectionery		241.2	260.1	303.1	295.3	326.6	325.1	312.2	271.3	233.4	211.4	229.0	232.0	157.6
Beverages, nonalcoholic		257.9	241.0	226.7	237.1	236.3	240.0	258.7	295.6	298.0	257.4	226.1	203.9	163.2
Malt liquors		316.0	293.0	289.9	289.4	307.7	326.8	344.1	370.3	365.1	349.6	318.6	287.8	180.5
Canning and preserving		216.9	204.6	216.5	216.2	250.2	265.7	437.9	683.8	653.7	401.8	249.3	217.8	216.0
Tobacco manufactures [1]	201.3	205.9	204.5	195.7	210.5	219.8	216.3	214.5	205.3	203.0	200.0	194.8	182.8	151.0
Cigarettes		254.1	246.3	219.2	259.6	267.9	253.3	252.8	243.7	248.5	253.7	239.6	220.9	172.0
Cigars		176.4	180.2	182.9	181.7	190.0	195.8	190.6	179.8	173.5	163.4	168.0	163.9	130.7
Tobacco (chewing and smoking) and snuff		156.1	154.1	156.5	155.7	169.8	164.0	172.7	171.6	164.2	164.6	147.7	125.7	131.1
Paper and allied products [1]	331.9	325.7	330.8	328.9	328.0	334.0	325.9	320.5	315.5	307.2	304.2	303.4	296.3	184.8
Paper and pulp		327.7	330.0	328.3	325.0	327.3	319.9	317.3	317.0	312.3	309.6	302.1	289.4	181.5
Paper goods, other		324.4	327.8	326.6	328.8	335.7	327.4	320.4	311.7	292.7	297.2	301.8	306.8	193.2
Envelopes		282.1	283.7	282.8	278.0	284.1	281.5	279.8	273.7	258.8	250.7	265.2	262.9	165.7
Paper bags		365.3	373.7	357.8	368.1	370.2	347.4	350.0	333.9	337.6	338.6	340.9	338.4	183.4
Paper boxes		292.5	305.4	307.1	309.1	321.9	314.5	340.2	291.5	280.1	273.6	283.8	282.9	180.9
Printing, publishing, and allied industries [1]	262.6	259.5	258.5	254.7	255.3	263.1	257.2	252.8	249.7	240.0	238.0	240.3	238.6	124.7
Newspapers and periodicals		235.0	229.2	224.6	218.9	230.0	224.0	221.6	221.6	214.0	208.9	210.0	209.3	111.7
Printing, book and job		278.6	280.0	278.6	283.4	285.3	279.3	272.8	266.6	254.8	258.9	258.1	255.4	137.3
Lithographing		221.4	227.2	219.0	224.0	237.1	236.1	226.2	225.9	215.7	207.4	216.6	216.1	124.9
Bookbinding		304.4	313.4	307.7	315.3	326.6	325.1	325.4	322.9	311.9	299.2	324.7	320.2	174.8

[1] See footnote 1, table A–5.

BLE A–7: Indexes of Production-Worker Weekly Pay Rolls in Manufacturing Industries [1]—Con.

[1939 average = 100]

Industry group and industry	1948					1947								Annual average
	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	1943
Nondurable goods—Continued														
emicals and allied products [1]	422.5	422.1	425.1	425.6	426.7	424.1	416.4	409.6	403.1	390.2	387.7	384.1	389.1	422.5
Paints, varnishes, and colors	.....	329.4	332.9	338.5	332.6	329.8	327.4	318.6	315.0	312.7	308.2	314.0	313.6	197.2
Drugs, medicines, and insecticides	.....	477.4	487.6	489.2	490.7	488.5	489.9	499.1	484.7	469.7	449.5	457.6	461.9	286.3
Perfumes and cosmetics	.....	213.5	220.4	231.2	230.9	240.5	265.3	250.1	228.2	211.2	205.0	216.7	212.7	180.6
Soap	.....	321.8	359.0	376.4	379.3	381.3	371.0	357.6	351.6	325.0	310.2	324.0	301.1	174.5
Rayon and allied products	.....	274.6	271.9	270.2	268.6	265.9	260.5	257.8	259.9	252.2	249.8	214.8	249.6	168.2
Chemicals, not elsewhere classified	.....	564.8	558.6	559.2	561.3	555.8	540.8	529.8	527.3	527.0	533.7	528.2	520.9	336.9
Explosives and safety fuses	.....	561.5	585.0	587.8	580.2	565.0	566.2	542.8	545.6	539.4	495.0	518.5	506.5	2,361.8
Compressed and liquefied gases	.....	483.7	473.6	475.5	465.0	459.6	458.0	445.6	455.3	448.1	437.4	444.0	419.4	325.3
Ammunition, small-arms	.....	395.6	396.8	388.7	*380.5	411.9	398.0	393.3	381.4	206.5	359.1	361.6	353.5	6,734.4
Fireworks	.....	566.0	625.8	610.2	591.6	633.8	711.6	747.3	577.7	447.7	534.3	691.8	691.8	5,963.9
Cottonseed oil	.....	270.2	316.4	338.0	397.4	448.4	448.7	443.1	315.8	221.6	193.8	201.3	219.6	230.4
Fertilizers	.....	482.9	492.3	439.6	433.4	393.0	362.5	373.9	390.9	354.5	334.5	349.8	422.6	272.2
ducts of petroleum and coal [1]	334.2	316.7	320.0	315.4	318.1	313.3	309.5	301.8	307.5	302.1	300.5	291.4	280.6	184.3
Petroleum refining	.....	301.3	299.3	295.0	296.8	293.4	288.9	279.7	287.6	282.8	286.1	273.4	262.5	176.7
Coke and byproducts	.....	294.4	321.1	316.0	319.8	294.8	292.7	288.1	289.9	280.0	270.5	281.9	271.8	183.4
Paving materials	.....	198.2	163.4	151.9	168.2	224.8	268.8	295.9	297.9	273.2	236.6	228.2	209.0	144.8
Roofing materials	.....	495.6	502.7	500.7	508.3	535.7	526.4	523.1	510.5	502.5	493.8	468.4	463.6	267.2
bber products [1]	320.9	312.8	320.6	337.2	354.9	373.6	361.4	354.4	348.3	337.6	331.2	342.3	347.5	263.9
Rubber tires and inner tubes	.....	323.6	330.6	355.9	388.4	412.1	407.5	398.0	397.9	396.0	389.5	396.1	399.3	265.7
Rubber boots and shoes	.....	333.9	347.0	345.0	342.8	367.1	322.4	331.7	314.4	268.4	290.0	317.1	331.2	268.8
Rubber goods, other	.....	347.1	356.2	366.2	368.3	379.9	362.2	352.3	338.3	321.5	304.9	320.1	325.5	255.8
cellaneous industries [1]	384.2	382.6	394.0	393.9	388.2	405.1	403.9	394.1	378.2	355.9	349.2	363.5	364.6	322.7
Instruments (professional and scientific), and fire-control equipment	.....	494.2	489.3	487.1	507.5	499.2	480.8	478.9	469.3	460.3	453.3	468.3	441.2	1,356.9
Photographic apparatus	.....	416.2	422.3	424.2	418.1	421.1	416.8	405.1	394.3	385.1	385.9	392.2	383.0	311.5
Optical instruments and ophthalmic goods	.....	438.1	444.8	446.3	452.3	458.5	445.3	443.5	442.3	426.5	433.7	462.8	461.0	439.0
Pianos, organs, and parts	.....	352.8	393.1	421.1	455.5	513.4	500.1	475.6	460.2	384.8	402.7	417.5	418.5	295.1
Games, toys, and dolls	.....	487.6	463.7	450.1	399.7	469.5	525.9	518.7	482.3	431.4	410.1	395.0	386.1	169.7
Buttons	.....	269.4	284.3	285.5	275.7	280.8	262.5	245.8	230.2	220.7	209.2	228.3	234.7	204.1
Fire extinguishers	.....	575.5	541.0	523.2	546.8	520.4	560.6	555.4	558.9	583.7	600.0	586.5	552.1	1,622.9

* Revised.
[1] See footnote 1, table A–5.

TABLE A–8: Estimated Number of Employees in Selected Nonmanufacturing Industries [1]

[In thousands]

Industry group and industry	1948					1947								Annual average	
	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	1943	1939
ining: [2] [3]															
Coal:															
Anthracite	76.4	76.9	77.4	76.6	76.2	76.5	76.2	76.2	76.0	76.7	74.2	75.7	76.4	78.4	83.6
Bituminous coal	402	295	400	397	404	402	399	397	394	390	363	392	389	419	372
Metal	90.9	90.9	90.7	90.2	89.7	89.8	89.4	88.7	89.6	91.0	90.6	91.9	90.8	112.7	92.6
Iron	32.5	32.3	31.5	31.0	30.9	31.3	32.0	32.4	32.4	32.7	32.6	32.4	31.7	35.3	21.1
Copper	26.1	26.8	26.9	27.0	26.9	26.6	26.1	25.8	25.7	25.7	25.7	25.7	25.3	33.3	25.0
Lead and zinc	16.5	15.8	15.7	15.7	15.7	15.6	15.4	14.9	15.5	16.5	16.3	17.8	17.8	21.6	16.3
Gold and silver	8.1	8.5	8.7	8.7	8.6	8.5	8.1	8.0	8.2	8.3	8.1	8.0	8.2	7.7	26.0
Miscellaneous	7.7	7.6	7.8	7.8	7.7	7.9	7.8	7.6	7.7	7.9	7.9	7.9	7.8	14.8	4.2
Quarrying and nonmetallic	86.0	84.9	80.9	77.8	79.9	83.9	86.4	87.3	88.1	88.9	88.6	88.3	87.2	80.9	68.5
Crude petroleum and natural gas production [4]	129.6	128.2	127.1	127.1	126.4	126.3	126.4	127.1	128.7	131.0	130.8	128.5	125.6	103.2	114.4
ansportation and public utilities:															
Class I steam railroads [5]	1,321	1,260	1,316	1,311	1,318	1,331	1,340	1,357	1,364	1,381	1,383	1,375	1,365	1,355	988
Street railways and busses [6]	249	249	249	249	250	249	249	249	251	253	254	253	253	227	194
Telephone	631	631	627	623	620	620	614	609	613	616	614	605	506	402	318
Telegraph [7]	36.3	36.9	36.9	36.8	36.6	36.7	36.6	36.9	37.6	37.8	38.2	38.5	38.7	46.9	37.6
Electric light and power	274	273	271	269	268	269	268	267	268	269	267	263	258	211	244
Service:															
Hotels (year-round)	377	377	375	377	378	381	378	380	379	379	382	385	382	344	323
Power laundries [3]	233	232	231	230	235	237	238	241	243	245	250	249	245	252	196
Cleaning and dyeing [3]	93.4	92.5	90.0	86.8	88.9	91.0	92.7	95.6	94.3	93.1	97.7	100.8	97.4	78.0	58.2

[1] Includes all employees unless otherwise noted. Data for the three most recent months are subject to revision without notation. Revised data for earlier months are identified by an asterisk.
[2] Includes production and related workers only.
[3] Estimates have been adjusted to levels indicated by data through 1946 made available by the Federal Security Agency. Only the bituminous coal industry was affected by this adjustment and comparable data from January 1940 are available. Comparable data for all industries from January 1939 are available upon request to the Bureau of Labor Statistics.
[4] Does not include well drilling or rig building.
[5] Includes all employees at middle of month. Excludes employees of switching and terminal companies. Class I steam railroads include those with over $1,000,000 annual revenue. Source: Interstate Commerce Commission.
[6] Includes private and municipal street-railway companies, and affiliated subsidiary, or successor trolley-bus and motor-bus companies.
[7] Includes all land-line employees except those compensated on a commission basis. Excludes general and divisional headquarters personnel, trainees in school, and messengers.

TABLE A–9: Indexes of Employment in Selected Nonmanufacturing Industries [1]

[1939 average=100]

Industry group and industry	1948					1947								Annual average
	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	1942
Mining: [2] [3]														
Coal:														
Anthracite	91.4	91.9	92.6	91.6	91.1	91.5	91.2	91.2	91.0	91.7	88.7	90.5	91.4	93.7
Bituminous coal	108.2	79.3	107.7	106.8	108.7	108.3	107.4	106.8	106.0	105.0	97.5	105.4	104.7	112.6
Metal	98.2	98.1	97.9	97.4	96.9	97.0	96.5	95.8	96.8	98.3	97.8	99.3	98.1	121.7
Iron	154.0	152.8	149.4	146.8	146.5	148.0	151.3	153.3	153.6	154.6	154.3	153.5	150.0	167.4
Copper	104.7	107.2	107.9	108.2	107.5	106.6	104.4	103.1	103.0	102.8	102.9	102.9	101.3	133.2
Lead and zinc	101.2	97.1	96.2	96.3	96.2	95.8	94.8	91.8	95.5	101.4	100.0	109.7	109.7	132.7
Gold and silver	31.3	32.5	33.3	33.4	33.1	32.5	31.3	30.9	31.5	31.8	31.3	30.8	31.6	26.7
Miscellaneous	182.9	180.5	186.7	187.0	183.0	187.2	185.7	181.6	184.6	188.3	187.9	189.3	185.6	372.6
Quarrying and nonmetallic	125.6	124.0	118.2	113.7	116.7	122.6	126.2	127.6	128.7	129.8	129.4	129.0	127.4	118.2
Crude petroleum and natural gas production [4]	113.3	112.0	111.1	111.1	110.5	110.4	110.5	111.1	112.5	114.5	114.3	112.3	109.8	90.3
Transportation and public utilities:														
Class I steam railroads [5]	133.7	127.5	133.3	132.7	133.4	134.8	135.7	137.4	138.1	139.8	140.0	139.2	138.2	127.2
Street railways and busses [6]	128.5	128.3	128.7	128.6	129.2	128.6	128.7	128.8	129.6	130.7	130.9	130.4	130.7	117.0
Telephone	198.6	198.5	197.4	196.2	195.0	195.0	193.3	191.6	192.9	193.8	193.3	190.4	159.2	136.7
Telegraph [7]	96.3	97.9	98.2	97.8	97.2	97.6	97.2	98.1	99.8	100.5	101.5	102.3	102.8	134.7
Electric light and power	112.3	111.7	110.9	110.3	109.8	110.3	109.7	109.4	109.9	110.2	109.3	107.5	105.7	80.2
Trade: [8]														
Wholesale	114.4	114.8	115.3	116.1	116.3	117.1	116.5	115.5	113.3	112.2	111.1	110.5	109.7	95.9
Retail	113.1	112.8	113.5	111.8	114.4	130.2	119.8	115.8	112.4	110.9	110.2	111.4	111.3	99.8
Food	116.3	116.1	116.7	113.9	114.4	117.4	116.1	115.0	112.6	114.7	113.0	113.7	113.9	106.2
General merchandise	123.7	123.6	124.5	122.9	129.4	175.5	143.6	131.5	122.8	115.7	116.7	120.6	121.2	116.0
Apparel	115.2	114.3	116.8	108.2	111.5	136.7	124.0	119.4	113.5	103.4	106.8	115.0	114.3	110.1
Furniture and housefurnishings	91.9	91.7	91.9	91.0	93.6	97.4	92.4	89.5	87.5	85.9	86.0	85.1	84.6	62.7
Automotive	107.0	106.7	105.8	105.7	106.5	109.9	107.6	105.6	104.8	105.1	104.2	100.6	99.4	63.0
Lumber and building materials	123.7	121.9	119.4	118.8	122.5	126.1	126.4	126.9	124.5	123.1	121.4	119.4	117.5	91.1
Service:														
Hotels (year-round)	117.0	116.9	116.4	116.8	117.2	118.1	117.1	117.7	117.4	117.6	118.3	119.4	118.4	106.6
Power laundries [3]	119.0	118.3	117.7	117.6	120.1	120.9	121.3	123.1	124.3	125.0	127.8	127.2	124.9	126.7
Cleaning and dyeing [3]	160.6	159.0	154.8	149.3	152.8	156.5	159.4	164.4	162.1	160.1	167.9	173.3	167.5	134.0

[1] See footnote 1, table A–8.
[2] See footnote 2, table A–8.
[3] See footnote 3, table A–8.
[4] See footnote 4, table A–8.
[5] See footnote 5, table A–8.
[6] See footnote 6, table A–8.
[7] See footnote 7, table A–8.
[8] Includes all nonsupervisory employees and working supervisors.

TABLE A–10: Indexes of Weekly Pay Rolls in Selected Nonmanufacturing Industries [1]

[1939 average=100]

Industry group and industry	1948					1947								Annual average
	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	1942
Mining: [2] [3]														
Coal:														
Anthracite	246.2	195.4	255.9	232.8	242.4	239.4	224.4	252.7	237.9	244.0	200.3	219.4	210.2	146.1
Bituminous coal	341.4	166.1	341.4	320.0	350.5	345.8	327.4	327.5	321.6	314.7	229.7	300.6	290.3	203.2
Metal	204.0	119.0	199.4	201.7	198.9	198.8	194.8	192.7	193.6	193.3	186.1	196.7	186.3	184.9
Iron	332.1	315.6	313.8	310.3	302.7	301.1	310.2	315.5	311.0	313.0	307.5	322.1	296.4	257.1
Copper	230.0	232.6	234.8	241.7	238.0	226.5	224.7	222.9	225.3	219.0	211.6	216.2	203.8	214.6
Lead and zinc	236.6	226.3	222.9	225.1	228.1	231.6	220.6	209.7	216.0	220.5	210.5	241.9	236.9	236.7
Gold and silver	54.6	55.2	56.7	58.4	56.4	56.5	53.7	51.7	52.1	52.1	47.2	49.9	49.7	37.2
Miscellaneous	352.5	334.3	340.3	347.4	348.4	349.2	346.7	338.1	339.6	345.0	327.6	332.0	319.1	560.7
Quarrying and nonmetallic	329.7	311.7	287.3	262.0	270.0	295.3	305.7	319.2	315.9	317.2	307.0	307.1	295.5	190.6
Crude petroleum and natural gas production [4]	228.7	218.4	213.2	219.9	215.5	203.2	211.0	199.9	206.5	204.0	204.9	206.0	192.2	128.0
Transportation and public utilities:														
Class I steam railroads	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(6)
Street railways and busses [6]	228.1	227.1	232.6	234.7	230.1	226.7	223.6	223.2	224.1	225.2	222.1	222.1	220.0	155.7
Telephone	330.5	322.5	314.7	316.3	315.8	313.0	321.5	314.2	312.3	306.2	302.2	292.5	202.9	144.9
Telegraph [7]	231.1	224.8	213.0	212.6	209.5	207.8	206.8	208.1	211.8	213.5	215.2	218.8	226.9	159.1
Electric light and power	191.9	188.6	184.4	188.2	187.9	185.7	187.6	182.8	183.1	182.9	178.4	177.5	168.2	109.2
Trade: [8]														
Wholesale	211.6	210.8	210.8	214.9	211.7	213.9	213.6	206.9	203.3	198.2	196.5	198.0	191.4	127.1
Retail	213.8	210.6	209.9	208.4	209.4	237.6	216.5	207.1	202.5	197.6	198.5	201.6	195.3	120.6
Food	227.0	225.5	226.1	221.5	219.4	221.5	220.0	213.8	209.2	212.2	213.8	212.1	206.0	123.2
General merchandise	229.2	225.5	225.5	221.4	233.0	314.0	251.1	225.2	220.4	212.0	214.1	218.9	212.3	135.9
Apparel	211.8	208.6	208.8	194.3	198.8	248.8	222.7	213.5	203.5	182.9	192.0	207.4	200.9	135.9
Furniture and housefurnishings	180.3	175.5	173.7	177.8	174.5	192.9	177.3	167.6	159.8	155.1	155.8	157.4	151.9	86.1
Automotive	205.3	203.5	197.5	196.8	193.9	204.2	198.6	193.8	188.5	188.5	184.8	184.3	177.7	84.7
Lumber and building materials	242.6	234.9	228.6	227.6	228.0	238.1	233.5	238.8	231.8	229.0	218.8	219.4	209.9	130.7
Service:														
Hotels (year-round) [9]	234.6	233.4	229.0	233.2	230.4	233.2	228.6	226.9	222.4	221.0	222.0	226.4	221.1	128.7
Power laundries [3]	232.3	231.5	227.5	225.4	232.9	233.6	226.8	232.3	236.2	231.3	238.5	239.3	231.0	167.0
Cleaning and dyeing [3]	312.4	308.0	291.2	271.9	285.6	292.8	293.7	303.8	301.7	285.0	310.5	328.4	313.5	185.4

[1] See footnote 1, table A–8.
[2] See footnote 2, table A–8.
[3] See footnote 3, table A–8.
[4] See footnote 4, table A–8.
[5] Not available.
[6] See footnote 6, table A–8.
[7] See footnote 7, table A–8.
[8] See footnote 8, table A–9.
[9] Money payments only; additional value of board, room, uniforms, and tips, not included.

TABLE A–11: Total Federal Employment by Branch and Agency Group [1]

Year and month	All branches	Executive [2]				Legislative	Judicial	Government corporations [3]
		Total	Defense agencies [4]	Post office Department [5]	All other agencies			
	Total (including areas outside continental United States)							
1939	968,596	935,493	207,979	319,474	408,040	5,373	2,260	25,470
1943	3,183,235	3,138,838	2,304,752	364,092	469,994	6,171	2,636	35,590
1947: May	2,193,091	2,151,264	1,028,043	435,423	687,798	7,246	3,071	31,510
June	2,168,896	2,127,715	996,238	437,303	694,174	7,215	3,061	30,905
July	2,103,246	2,062,275	936,533	439,617	686,125	7,254	3,074	30,643
August	2,067,228	2,026,071	923,080	442,289	660,702	7,230	3,404	30,523
September	2,020,873	1,980,084	906,989	425,449	647,646	7,184	3,406	30,199
October	2,002,385	1,962,042	901,197	425,005	635,840	7,118	3,430	29,795
November	2,006,412	1,966,339	905,251	429,789	631,299	7,068	3,453	29,552
December	2,229,164	2,189,436	894,855	667,912	626,669	7,046	3,450	29,232
1948: January	1,985,979	1,946,258	890,719	433,102	622,437	7,051	3,461	29,209
February	1,992,216	1,952,533	895,850	432,696	623,987	7,125	3,470	29,088
March	2,004,228	1,964,374	897,958	439,517	626,899	7,210	3,462	29,182
April	2,020,715	1,980,998	903,814	449,260	627,924	7,184	3,461	29,072
May	2,039,307	1,999,581	910,232	455,707	633,642	7,246	3,468	29,012
	Continental United States							
1939	926,659	897,602	179,381	318,802	399,419	5,373	2,180	21,504
1943	2,913,534	2,875,928	2,057,696	363,297	454,935	6,171	2,516	28,889
1947: May	1,924,560	1,890,920	796,135	433,996	660,789	7,246	3,003	23,391
June	1,905,068	1,871,898	769,268	435,831	666,799	7,215	2,993	22,962
July	1,848,469	1,815,222	718,523	438,110	658,589	7,254	3,006	22,987
August	1,815,905	1,782,410	708,681	440,773	632,956	7,230	3,332	22,933
September	1,781,733	1,748,530	704,575	424,005	619,950	7,184	3,334	22,685
October	1,764,384	1,731,411	699,815	423,473	608,123	7,118	3,358	22,497
November	1,771,360	1,738,587	706,418	428,252	603,917	7,068	3,381	22,324
December	2,005,567	1,973,066	708,099	665,662	599,305	7,046	3,377	22,078
1948: January	1,763,482	1,731,053	704,251	431,571	595,231	7,051	3,388	21,990
February	1,766,184	1,733,698	705,792	431,214	596,692	7,125	3,396	21,965
March	1,778,593	1,745,910	708,975	437,942	598,993	7,210	3,388	22,085
April	1,791,763	1,759,094	710,991	447,678	600,425	7,184	3,387	22,098
May	1,809,115	1,776,485	717,419	454,122	604,944	7,246	3,394	21,990

[1] Employment represents an average for the year or is as of the first of the month. Data for the legislative and judicial branches and for all Government corporations except the Panama R. R. Co. are reported directly to the Bureau of Labor Statistics. Data for the executive branch and for the Panama R. R. Co. are reported through the Civil Service Commission but differ from those published by the Civil Service Commission in the following respects: (1) Exclude seamen and trainees who are hired and paid by private steamship companies having contracts with the Maritime Commission, included by Civil Service Commission starting January 1947; (2) exclude substitute rural mail carriers, included by the Civil Service Commission since September 1945; (3) include in December the additional postal employment necessitated by the Christmas season, excluded from published Civil Service Commission figures starting 1942; (4) include an upward adjustment to Post Office Department employment prior to December 1943 to convert temporary substitute employees from a full-time equivalent to a name-count basis, the latter being the basis on which data for subsequent months have been reported; (5) the Panama R. R. Co. is shown under Government corporations here, but is included under the executive branch by the Civil Service Commission; (6) employment published by the Civil Service Commission as of the last day of the month is presented here as of the first day of the next month.

Data for Central Intelligence Agency are excluded starting August 1947.

[2] From 1939 through June 1943 employment was reported for all areas monthly and employment within continental United States was secured by deducting the number of persons outside the continental area, which was estimated from actual reports as of January 1939 and 1940 and July of 1941, and 1943. From July 1943, through December 1946, employment within continental United States was reported monthly and the number of persons outside the country (estimated from quarterly reports) was added to secure employment in all areas. Beginning January 1947, employment is reported monthly both inside and outside continental United States.

[3] Data for current months cover the following corporations: Federal Reserve banks, mixed ownership banks of the Farm Credit Administration, and the Panama R. R. Co. Data for earlier years include at various times the following additional corporations: Inland Waterways Corporation, Spruce Production Corporation, and certain employees of the Federal Deposit Insurance Corporation and of the Office of the Comptroller of the Currency, Treasury Department. Corporations not included in this column are under the executive branch.

[4] Covers the National Military Establishment, Maritime Commission, National Advisory Committee for Aeronautics, The Panama Canal, and until their abolition or amalgamation with a peacetime agency, the agencies created specifically to meet war and reconversion emergencies.

[5] For ways in which data differ from published figures of the Civil Service Commission, see footnote 1. Employment figures include fourth-class postmasters in all months. Prior to July 1945, clerks at third-class post offices were hired on a contract basis and therefore, because of being private employees, are excluded here. They are included beginning July 1945, however, when they were placed on the regular Federal pay roll by congressional action.

TABLE A–12: Total Federal Pay Rolls by Branch and Agency Group [1]

[In thousands]

Year and month	All branches	Executive [2]				Legislative	Judicial	Government corporations
		Total	Defense agencies [4]	Post Office Department [5]	All other agencies			
	Total (including areas outside continental United States)							
1939	$1,757,292	$1,692,824	$357,628	$586,347	$748,849	$14,767	$6,691	$43,0
1944 [6]	8,301,111	8,206,411	6,178,387	864,947	1,163,077	18,127	9,274	67,2
1947: May	514,057	504,747	235,118	95,256	174,373	2,439	1,181	5,6
June	508,378	499,154	234,576	93,505	171,073	2,425	1,149	5,6
July	494,351	484,811	213,772	96,591	174,448	2,483	1,329	5,7
August	464,076	454,723	199,247	96,145	159,331	2,421	1,259	5,6
September	470,515	461,157	201,582	96,485	163,090	2,448	1,284	5,6
October	481,401	471,938	203,892	99,713	168,333	2,457	1,334	5,6
November	451,502	442,171	192,111	98,666	151,394	2,457	1,192	5,6
December	531,427	521,900	214,033	143,537	164,330	2,461	1,336	5,7
1948: January	482,987	473,466	211,495	100,395	161,576	2,451	1,292	5,7
February	445,150	435,894	191,372	98,054	146,468	2,404	1,195	5,6
March	498,272	488,676	218,706	102,124	167,846	2,496	1,343	5,7
April	477,580	468,100	204,606	100,894	162,600	2,480	1,322	5,6
May	464,214	454,930	196,720	101,473	156,737	2,469	1,207	5,6
	Continental United States							
1944 [6]	$7,628,017	$7,540,825	$5,553,166	$862,271	$1,125,388	$18,127	$8,878	$60,1
1947: May	469,774	461,165	198,395	94,936	167,834	2,439	1,145	5,0
June	463,490	454,930	197,216	93,185	164,529	2,425	1,114	5,0
July	453,649	444,743	180,976	96,260	167,507	2,483	1,293	5,1
August	423,545	414,898	166,681	95,819	152,398	2,421	1,223	5,0
September	430,555	421,857	169,441	96,138	156,278	2,448	1,248	5,0
October	443,408	434,545	173,717	99,356	161,472	2,457	1,297	5,1
November	414,020	405,485	162,219	98,313	144,953	2,457	1,154	4,9
December	491,702	482,860	182,091	143,057	157,712	2,461	1,301	5,0
1948: January	443,175	434,366	179,395	100,052	154,919	2,451	1,255	5,1
February	408,628	399,975	161,996	97,703	140,276	2,404	1,160	5,0
March	456,824	447,901	185,284	101,765	160,852	2,496	1,304	5,1
April	439,652	430,845	174,409	100,543	155,893	2,480	1,288	5,0
May	428,027	419,377	168,052	101,117	150,208	2,469	1,175	5,0

[1] Data are from a series revised June 1947 to adjust pay rolls, which from July 1945 until December 1946 were reported for pay periods ending during the month, to cover the entire calendar month. Data for the executive branch and for the Panama R. R. Co. are reported through the Civil Service Commission. Data for the legislative and judicial branches and for all Government corporations except the Panama R. R. Co. are reported directly to the Bureau of Labor Statistics. Data for Central Intelligence Agency are excluded starting July 1947.

[2] From 1939 through May 1943, pay rolls were reported for all areas monthly. Beginning June 1943, some agencies reported pay rolls for all areas and some reported pay rolls for the continental area only. Pay rolls for areas outside continental United States from June 1943 through November 1946 (except for the National Military Establishment for which these data were reported monthly during most of this period) were secured by multiplying employment in these areas (see footnote 2, table A–11, for derivation of the employment) by the average pay per person in March 1944, as revealed in a survey as of that date, adjusted for the salary increases given in July 1945 and July 1946. Beginning December 1946 pay rolls for areas outside the country are reported monthly by most agencies.

[3] See footnote 3, table A–11.

[4] See footnote 4, table A–11.

[5] Beginning July 1945, pay is included of clerks at third-class post offices who previously were hired on a contract basis and therefore were private employees and of fourth-class postmasters who previously were recompensed by the retention of a part of the postal receipts. Both these groups were placed on a regular salary basis in July 1945 by congressional action.

[6] Data are shown for 1944, instead of 1943 as in the other Federal tables, because pay rolls for employment in areas outside continental United States are not available prior to June 1943.

TABLE A–13: Total Government Employment and Pay Rolls in Washington, D. C., by Branch and Agency Group [1]

Year and month	Total government	District of Columbia Government	Federal						
			Total	Executive				Legislative	Judicial
				All agencies	Defense agencies [2]	Post Office Department [3]	All other agencies		
	Employment [4]								
39	143,548	13,978	129,570	123,773	18,761	5,099	99,913	5,373	424
43	300,914	15,875	285,040	278,363	144,319	8,273	125,771	6,171	506
47: May	241,053	18,024	223,029	215,210	73,309	7,413	134,488	7,246	573
June	237,859	18,521	219,338	211,554	71,175	7,309	133,070	7,215	569
July	231,112	18,454	212,658	204,831	67,968	7,093	129,770	7,254	573
August	223,728	17,807	205,921	198,099	65,062	7,342	125,695	7,230	592
September	221,862	18,074	203,788	196,033	64,651	7,120	124,262	7,184	571
October	221,236	18,303	202,933	195,239	64,505	7,284	123,450	7,118	576
November	221,481	18,381	203,100	195,448	64,548	7,281	123,619	7,068	584
December	224,375	18,418	205,957	198,331	64,715	10,156	123,460	7,046	580
48: January	221,799	18,448	203,351	195,714	65,065	7,258	123,391	7,051	586
February	224,541	18,625	205,916	198,201	65,543	7,235	125,423	7,125	590
March	226,208	18,668	207,540	199,743	66,009	7,412	126,322	7,210	587
April	227,627	18,628	208,999	201,227	66,635	7,396	127,196	7,184	588
May	228,673	18,500	210,173	202,339	67,314	7,380	127,645	7,246	588
	Pay rolls (in thousands)								
39	$305,741	$25,226	$280,515	$264,541	$37,825	$12,524	$214,192	$14,765	$1,209
43	737,792	32,884	704,908	685,510	352,008	20,070	313,432	17,785	1,613
47: May	66,834	4,250	62,584	59,944	19,295	2,019	38,630	2,439	201
June	63,454	4,203	59,251	56,630	17,837	2,421	36,372	2,425	196
July	64,577	3,381	61,196	58,503	18,536	2,297	37,670	2,483	210
August	58,624	3,187	55,437	52,817	15,705	2,283	34,829	2,421	199
September	59,911	4,382	55,529	52,876	16,651	2,239	33,986	2,448	205
October	64,467	4,496	59,971	57,298	16,806	2,744	37,748	2,457	216
November	59,400	4,223	55,177	52,525	16,110	2,606	33,809	2,457	195
December	64,122	4,570	59,552	56,873	17,230	3,135	36,508	2,461	218
48: January	63,304	4,499	58,805	56,141	16,656	2,776	36,709	2,451	213
February	57,981	4,281	53,700	51,099	15,910	2,165	33,024	2,404	197
March	65,333	4,518	60,815	58,104	17,900	2,340	37,864	2,496	215
April	62,985	4,495	58,490	55,799	16,324	2,227	37,198	2,480	211
May	60,518	4,392	56,126	53,456	15,647	2,282	35,527	2,469	201

[1] Data for the legislative and judicial branches and District of Columbia Government are reported to the Bureau of Labor Statistics. Data for the executive branch are reported through the Civil Service Commission but differ from those published by the Civil Service Commission in the following respects: (1) Include in December the temporary additional postal employment necessitated by the Christmas season, excluded from published Civil Service Commission figures starting 1942; (2) include an upward adjustment in Post Office Department employment prior to December 1943 to convert temporary substitute employees from a full-time equivalent to a name-count basis, the latter being the basis on which data for subsequent months have been reported; (3) exclude persons working without compensation or for $1 a year or month, included by the Civil Service Commission from June through November 1943; (4) employment published by the Civil Service Commission as of the last day of the month is presented here as of the first day of the next month.

Beginning January 1942, data for the executive branch cover, in addition to the area inside the District of Columbia, the adjacent sections of Maryland and Virginia which are defined by the Bureau of the Census as in the metropolitan area. Data for Central Intelligence Agency are excluded starting August 1947 for employment and July 1947 for pay rolls.

[2] Covers the National Military Establishment, Maritime Commission, National Advisory Committee for Aeronautics, The Panama Canal, and until their abolition or amalgamation with a peacetime agency, the agencies created specifically to meet war and reconversion emergencies.

[3] For ways in which data differ from published figures of the Civil Service Commission, see footnote 1.

[4] Yearly figures represent averages. Monthly figures represent (1) the number of regular employees in pay status on the first day of the month plus the number of intermittent employees who were paid during the preceding month for the executive branch, (2) the number of employees on the pay roll with pay during the pay period ending just before the first of the month for the legislative and judicial branches, and (3) the number of employees on the pay roll with pay during the pay period ending on or just before the last of the month for the District of Columbia Government.

TABLE A–14: Personnel and Pay in Military Branch of Federal Government [1]

[In thousands]

Year and month	Personnel (average for year or as of first of month) [2]					Type of pay				
	Total	Army and Air Forces [3]	Navy	Marine Corps	Coast Guard	Total	Pay rolls [4]	Mustering-out pay [5]	Family allowances [6]	Leave payments [7]
1939	345	192	124	19	10	$331,523	$331,523			
1943	8,944	6,733	1,744	311	156	11,173,186	10,140,852		$1,032,334	
1947: May	1,703	1,082	501	99	21	369,947	263,701	$15,022	25,814	
June	1,632	1,021	496	94	21	335,391	262,505	12,465	24,459	
July	1,592	990	490	93	19	339,128	259,172	12,670	25,036	
August	1,575	972	492	92	19	334,129	248,670	10,498	24,502	
September	1,557	955	491	92	19	332,804	248,928	9,632	24,210	
October	1,543	941	491	92	19	355,961	271,040	9,954	25,145	
November	1,490	920	459	92	19	309,705	252,112	9,117	23,127	
December	1,451	911	433	87	20	300,257	246,532	13,293	23,827	
1948: January	1,410	898	409	83	20	300,241	250,953	13,465	23,454	
February	1,407	905	402	80	20	281,423	240,493	11,838	23,566	
March	1,409	909	400	80	20	285,011	242,969	13,050	24,997	
April	1,404	906	399	79	20	285,210	247,452	9,751	25,414	
May	1,406	916	390	80	20	278,995	242,292	9,085	25,736	

[1] Except for Army personnel for 1939 which is from the Annual Report of the Secretary of War, all data are from reports submitted to the Bureau of Labor Statistics by the various military branches.

[2] Includes personnel on active duty, the missing, those in the hands of the enemy, and those on terminal leave through October 1, 1947, when lump-sum terminal-leave payments at time of discharge were started.

[3] Prior to March 1944, data include persons on induction furlough. Prior to June 1942 and after April 1945, Philippine Scouts are included.

[4] Pay rolls are for personnel on active duty; they include payment of personnel while on terminal leave through September 1947. For officers this applies to all prior periods and for enlisted personnel back to October 1, 1946, only. Beginning October 1, 1947, they include lump-sum terminal-leave payments made at time of discharge. Coast Guard pay rolls for all periods and Army pay rolls through April 1947 represent actual expenditures. Other data represent estimated obligations based on an average monthly personnel count. Pay rolls for the Navy and Coast Guard include cash payments for clothing-allowance balances in January, April, July, and October.

[5] Represents actual expenditures.

[6] Represents Government's contribution. The men's share is included in the pay rolls.

[7] Leave payments were authorized by Public Law 704 of the 79th Congress and were continued by Public Law 254 of the 80th Congress to enlisted personnel discharged prior to September 1, 1946, for accrued and unused leave and to officers and enlisted personnel then on active duty for leave accrued in excess of 60 days. Value of bonds (representing face value, to which interest is added when bonds are cashed) and cash payments are included. Lump-sum payments for terminal leave, which were authorized by Public Law 350 of the 80th Congress, and which were started in October 1947, are excluded here and included under pay rolls.

B: Labor Turn-Over

TABLE B–1: Monthly Labor Turn-Over Rates (Per 100 Employees) in Manufacturing Industries by Class of Turn-Over [1]

Class of turn-over and year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Total accession:												
1948	4.6	3.9	4.0	[2] 4.0								
1947	6.0	5.0	5.1	5.1	4.8	5.5	4.9	5.3	5.9	5.5	4.8	
1946	8.5	6.8	7.1	6.7	6.1	6.7	7.4	7.0	7.1	6.8	5.7	
1943	8.3	7.9	8.3	7.4	7.2	8.4	7.8	7.6	7.7	7.2	6.6	
1939 [3]	4.1	3.1	3.3	2.9	3.3	3.9	4.2	5.1	6.2	5.9	4.1	
Total separation:												
1948	4.3	4.2	4.5	[2] 4.7								
1947	4.9	4.5	4.9	5.2	5.4	4.7	4.6	5.3	5.9	5.0	4.0	
1946	6.8	6.3	6.6	6.3	6.3	5.7	5.8	6.6	6.9	6.3	4.9	
1943	7.1	7.1	7.7	7.5	6.7	7.1	7.6	8.3	8.1	7.0	6.4	
1939 [3]	3.2	2.6	3.1	3.5	3.5	3.3	3.3	3.0	2.8	2.9	3.0	
Quit: [4]												
1948	2.6	2.5	2.8	[2] 3.0								
1947	3.5	3.2	3.5	3.7	3.5	3.1	3.1	4.0	4.5	3.6	2.7	
1946	4.3	3.9	4.2	4.3	4.2	4.0	4.6	5.3	5.3	4.7	3.7	
1943	4.5	4.7	5.4	5.4	4.8	5.2	5.6	6.3	6.3	5.2	4.5	
1939 [3]	.9	.6	.8	.8	.7	.7	.7	.8	1.1	.9	.8	
Discharge:												
1948	.4	.4	.4	[2] .4								
1947	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	
1946	.5	.5	.4	.4	.4	.3	.4	.4	.4	.4	.4	
1943	.5	.5	.6	.5	.6	.6	.7	.7	.6	.6	.6	
1939 [3]	.1	.1	.1	.1	.1	.1	.1	.1	.1	.2	.2	
Lay-off: [5]												
1948	1.2	1.2	1.2	[2] 1.2								
1947	.9	.8	.9	1.0	1.4	1.1	1.0	.8	.9	.9	.8	
1946	1.8	1.7	1.8	1.4	1.5	1.2	.6	.7	1.0	1.0	.7	
1943	.7	.5	.5	.6	.5	.5	.5	.5	.5	.5	.7	
1939 [3]	2.2	1.9	2.2	2.6	2.7	2.5	2.5	2.1	1.6	1.8	2.0	
Miscellaneous including military: [4]												
1948	.1	.1	.1	[2] .1								
1947	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	
1946	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.1	
1943	1.4	1.4	1.2	1.0	.8	.8	.8	.8	.7	.7	.6	

[1] Month-to-month changes in total employment in manufacturing industries as indicated by labor turn-over rates are not precisely comparable to those shown by the Bureau's employment and pay-roll reports, as the former are based on data for the entire month, while the latter, for the most part, refer to a one-week period ending nearest the middle of the month. The turn-over sample is not so extensive as that of the employment and pay-roll survey—proportionately fewer small plants are included; printing and publishing, and certain seasonal industries, such as canning and preserving, are not covered. Plants on strike are also excluded. For coverage, see table B-5.

[2] Preliminary figures.

[3] Prior to 1943, rates relate to wage earners only.

[4] Prior to September 1940, miscellaneous separations were included with quits.

[5] Including temporary, indeterminate (of more than 7 days' duration) and permanent lay-offs.

ABLE B-2: Monthly Labor Turn-Over Rates (Per 100 Employees) in Selected Groups and Industries [1]

Group and industry	Total accession		Separation									
			Total		Quit		Discharge		Lay-off		Miscellaneous, including military	
	Apr.[2] 1948	Mar. 1948	Apr.[2] 1948	Mar. 1948	Apr.[2] 1948	Mar. 1948	Apr.[2] 1948	Mar. 1948	Apr.[2] 1948	Mar. 1948	Apr.[2] 1948	Mar. 1948
MANUFACTURING	4.2	4.4	5.0	4.8	3.2	2.9	0.4	0.4	1.3	1.4	0.1	0.1
rable goods	3.7	3.6	4.3	4.0	2.8	2.6	.3	.3	1.1	1.0	.1	.1
udurable goods												
Durable goods												
n and steel and their products	3.6	3.9	4.4	4.0	2.9	2.7	.4	.4	.9	.7	.2	.2
Blast furnaces, steel works, and rolling mills	2.7	3.1	2.5	2.7	1.9	2.2	.2	.2	.2	.1	.2	.2
Gray-iron castings	5.5	5.0	8.1	7.3	4.7	4.6	.7	.9	2.6	1.7	.1	.1
Malleable-iron castings	5.4	6.1	7.5	5.8	6.0	4.6	.7	.6	.6	.3	.2	.3
Steel castings	5.0	4.9	4.6	4.5	3.5	3.1	.6	.7	.4	.5	.1	.2
Cast-iron pipe and fittings	(3)	5.1	(3)	3.8	(3)	2.7	(3)	.3	(3)	.7	(3)	.1
Tin cans and other tinware	7.1	6.2	5.2	7.9	2.8	2.7	.5	.8	1.8	4.3	.1	.1
Wire products	2.0	2.2	4.2	3.2	2.1	1.9	.3	.3	1.6	.9	.2	.1
Cutlery and edge tools	3.0	3.6	5.4	5.3	3.1	2.8	.4	.7	1.8	1.8	.1	(4)
Tools (except edge tools, machine tools, files, and saws)	3.3	3.1	4.2	3.4	2.8	2.1	.5	.3	8.	.8	.1	.2
Hardware	3.6	4.4	6.5	4.4	4.8	3.5	.5	.4	1.1	.4	.1	.1
Stoves, oil burners, and heating equipment	4.3	4.3	6.0	7.0	3.0	3.2	.4	.5	2.5	3.2	.1	.1
Steam and hot-water heating apparatus and steam fittings	5.6	4.9	6.2	4.9	4.2	3.0	.6	.6	1.3	1.3	.1	(4)
Stamped and enameled ware and galvanizing	5.1	5.8	6.6	5.6	4.2	3.5	.5	.5	1.7	1.4	.2	.2
Fabricated structural metal products	3.9	4.5	5.1	5.5	3.1	2.9	.4	.4	1.5	2.1	.1	.1
Bolts, nuts, washers, and rivets	2.8	3.3	3.7	3.3	2.4	2.4	.4	.4	.7	.4	.2	.1
Forgings, iron and steel	3.2	3.5	4.3	4.9	2.5	2.0	.4	.3	1.3	2.5	.1	.1
ctrical machinery	2.8	2.8	3.9	4.5	2.2	2.2	.3	.3	1.3	1.8	.1	.2
Electrical equipment for industrial use	1.8	2.1	2.9	2.8	1.6	1.5	.2	.2	.9	.9	.2	.2
Radios, radio equipment, and phonographs	5.3	4.9	5.1	6.7	3.1	3.4	.4	.6	1.5	2.6	.1	.1
Communication equipment, except radios	1.1	1.9	3.2	3.5	1.7	2.1	.3	.3	1.1	1.0	.1	.1
Machinery, except electrical	3.2	3.5	4.1	3.8	2.6	2.4	.4	.4	1.0	.9	.1	.1
Engines and turbines	4.0	4.1	4.7	4.6	2.3	1.8	.4	.5	1.8	2.1	.2	.2
Agricultural machinery and tractors	(3)	4.8	(3)	4.9	(3)	3.9	(3)	.4	(3)	.4	(3)	.2
Machine tools	1.9	2.1	3.2	3.0	1.7	1.3	.2	.3	1.1	1.3	.2	.1
Machine-tool accessories	3.7	3.3	3.3	3.4	1.6	1.7	.4	.3	1.3	1.3	(4)	.1
Metalworking machinery and equipment, not elsewhere classified	3.2	3.3	3.8	2.9	2.8	2.1	.6	.4	.3	.3	.1	.1
General industrial machinery, except pumps	3.1	3.4	3.9	3.9	2.3	2.2	.4	.4	1.1	1.2	.1	.1
Pumps and pumping equipment	2.4	2.6	4.1	4.7	2.5	1.9	.4	.5	1.0	2.2	.2	.1
Transportation equipment, except automobiles	6.1	7.7	7.9	7.2	3.2	3.1	.4	.6	4.1	3.4	.2	.1
Aircraft	4.7	5.3	4.5	4.2	3.0	2.8	.2	.3	1.2	1.0	.1	.1
Aircraft parts, including engines	4.1	2.6	2.8	2.8	1.7	1.4	.3	.2	.7	1.2	.1	(4)
Shipbuilding and repairs	(3)	13.4	(3)	13.4	(3)	4.2	(3)	1.1	(3)	8.0	(3)	.1
Automobiles	5.1	4.8	5.4	6.0	3.5	2.9	.5	.5	1.2	2.4	.2	.2
Motor vehicles, bodies, and trailers	5.3	5.0	5.0	6.4	3.7	3.1	.5	.5	.7	2.6	.1	.2
Motor-vehicle parts and accessories	4.5	4.3	6.1	5.2	2.9	2.5	.6	.5	2.4	2.0	.2	.2
Nonferrous metals and their products	3.4	4.0	5.2	4.2	2.7	2.4	.4	.5	1.9	1.2	.2	.1
Primary smelting and refining, except aluminum and magnesium	2.9	3.0	2.9	2.4	2.1	1.4	.5	.6	.1	.2	.2	.2
Rolling and drawing of copper and copper alloys	1.8	2.8	2.9	2.4	1.8	1.5	.2	.3	.8	.6	.1	(4)
Lighting equipment	3.2	5.4	7.7	5.5	2.1	2.0	.2	.3	5.3	3.1	.1	.1
Nonferrous-metal foundries, except aluminum and magnesium	4.7	5.6	6.9	5.2	3.8	3.0	.7	.7	2.2	1.3	.2	.2
Lumber and timber basic products	6.1	6.0	5.5	6.2	4.4	4.7	.3	.3	.8	1.1	(4)	.1
Sawmills	6.2	5.7	4.9	5.7	4.2	4.4	.2	.3	.5	1.0	(4)	(4)
Planing and plywood mills	4.5	4.3	5.1	4.4	4.2	3.4	.4	.3	.4	.6	.1	.1
Furniture and finished lumber products	4.9	5.6	8.4	7.1	5.3	4.6	.7	.7	2.3	1.7	.1	.1
Furniture, including mattresses and bedsprings	4.9	5.4	8.6	7.4	5.4	4.8	.7	.8	2.4	1.7	.1	.1
Stone, clay, and glass products	4.3	4.3	4.1	3.6	2.8	2.3	.4	.4	.7	.7	.2	.2
Glass and glass products	3.8	4.9	4.4	4.1	2.4	2.0	.4	.4	1.3	1.5	.3	.2
Cement	4.6	3.0	3.1	2.9	2.5	2.3	.4	.4	.1	.1	.1	.1
Brick, tile, and terra cotta	5.6	4.0	4.4	4.1	3.5	3.0	.5	.5	.4	.5	(4)	.1
Pottery and related products	4.4	4.5	4.4	3.8	3.1	2.9	.4	.4	.8	.4	.1	.1

ee footnotes at end of table.

TABLE B–2: Monthly Labor Turn-Over Rates (Per 100 Employees) in Selected Groups and Industries [1] Continued

Group and industry	Total accession		Separation									
			Total		Quit		Discharge		Lay-off		Miscellaneous including military	
	Apr.[2] 1948	Mar. 1948	Apr.[2] 1948	Mar. 1948	Apr.[2] 1948	Mar. 1948	Apr.[2] 1948	Mar. 1948	Apr.[2] 1948	Mar. 1948	Apr.[2] 1948	Mar. 1948
MANUFACTURING—Continued												
Durable goods—Continued												
Textile-mill products	4.2	4.3	4.4	4.2	3.2	3.0	.4	.4	.7	.7	.1	
Cotton	5.1	4.8	5.2	5.1	4.0	3.8	.4	.4	.7	.8	.1	
Silk and rayon goods	3.7	3.4	3.5	2.9	2.5	2.2	.3	.2	.6	.4	.1	
Woolen and worsted, except dyeing and finishing	3.1	3.7	4.1	3.1	1.9	1.9	.3	.3	1.8	.8	.1	
Hosiery, full-fashioned	3.0	3.0	2.8	2.9	2.2	2.3	.2	.3	.3	.2	.1	
Hosiery, seamless	4.4	5.4	6.0	5.0	4.3	3.8	.2	.2	1.3	.9	.2	
Knitted underwear	3.9	5.3	4.7	3.8	3.6	3.2	.4	.5	.7	.1	(4)	(4)
Dyeing and finishing textiles, including woolen and worsted	2.2	2.8	2.5	2.7	1.6	1.6	.3	.4	.5	.6	.1	
Apparel and other finished textile products	4.2	4.5	5.1	4.6	3.6	3.5	.2	.3	1.3	.8	(4)	(4)
Men's and boys' suits, coats, and overcoats	3.1	3.9	3.0	3.3	2.0	2.5	.1	.2	.9	.6	(4)	(4)
Men's and boys' furnishings, work clothing, and allied garments	4.9	4.8	5.7	4.5	4.6	4.1	.3	.2	.8	.2	(4)	(4)
Leather and leather products	2.8	3.0	5.1	5.3	3.3	3.3	.3	.3	1.4	1.6	.1	
Leather	1.7	1.5	4.0	4.3	1.8	1.6	.2	.2	1.9	2.4	.1	
Boots and shoes	3.0	3.2	5.2	5.4	3.5	3.6	.3	.4	1.3	1.3	.1	
Food and kindred products	5.1	4.3	5.0	4.6	2.9	2.7	.4	.3	1.5	1.5	.2	
Meat products	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Grain-mill products	2.8	2.2	4.0	4.7	2.8	2.3	.3	.2	.8	2.0	.1	
Tobacco manufactures	3.8	3.8	5.0	4.3	3.8	3.1	.3	.3	.8	.8	.1	
Paper and allied products	3.2	3.1	3.5	3.2	2.4	2.2	.4	.3	.6	.6	.1	
Paper and pulp	3.1	2.9	2.8	2.8	2.0	2.0	.3	.3	.4	.4	.1	
Paper boxes	2.9	3.2	4.6	4.5	3.0	2.8	.5	.5	1.0	1.1	.1	
Chemicals and allied products	2.0	2.1	2.2	2.0	1.3	1.2	.2	.2	.6	.5	.1	
Paints, varnishes, and colors	1.9	2.1	2.1	2.6	1.3	1.3	.3	.4	.4	.9	.1	(4)
Rayon and allied products	1.6	1.2	1.5	1.2	1.0	.8	.1	.1	.2	.2	.2	
Industrial chemicals, except explosives	2.6	2.4	2.2	2.1	1.4	1.3	.3	.3	.4	.4	.1	
Products of petroleum and coal	1.7	1.5	1.1	1.2	.5	.6	.1	.1	.4	.4	.1	
Petroleum refining	1.3	1.4	.7	.8	.4	.5	.1	.1	.1	.1	.1	
Rubber products	2.4	2.3	5.0	5.2	2.7	2.4	.2	.2	1.9	2.3	.2	
Rubber tires and inner tubes	1.7	.9	4.4	4.8	1.8	1.7	.1	.1	2.4	2.7	.1	
Rubber footwear and related products	4.4	4.9	5.7	7.6	4.2	3.5	.2	.2	.6	3.3	.7	
Miscellaneous rubber industries	2.9	3.5	5.7	4.9	3.6	3.2	.3	.4	1.7	1.2	.1	
Miscellaneous industries	2.2	2.3	3.3	3.2	1.7	1.6	.2	.2	1.3	1.3	.1	
NONMANUFACTURING												
Metal mining	6.0	4.9	5.6	4.9	4.5	3.9	.4	.4	.5	.4	.2	
Iron-ore	5.6	3.2	3.1	2.5	2.4	1.5	.2	.1	.1	.5	.4	
Copper-ore	5.1	5.1	6.5	5.5	5.3	4.9	.2	.3	.9	.2	.1	
Lead- and zinc-ore	6.7	5.6	6.3	5.7	5.0	4.4	.9	.7	.2	.5	.2	
Coal mining												
Anthracite	1.8	1.9	2.0	1.5	1.2	1.1	.1	(4)	.6	.3	.1	
Bituminous-coal	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Public utilities:												
Telephone	(3)	2.3	(3)	1.7	(3)	1.4	(3)	.1	(3)	.1	(3)	
Telegraph	(3)	2.3	(3)	1.8	(3)	1.1	(3)	.1	(3)	.5	(3)	

[1] Since January 1943 manufacturing firms reporting labor turn-over information have been assigned industry codes on the basis of current products. Most plants in the employment and pay-roll sample, comprising those which were in operation in 1939, are classified according to their major activity at that time, regardless of any subsequent change in major products. Labor turn-over data, beginning in January 1943, refer to all employees. Employment information for all employees is available for major manufacturing industry groups; for individual industries these data refer to production workers only.

[2] Preliminary figures.
[3] Not available.
[4] Less than 0.05.

Coverage

Rates for the month of March are based on 6,900 manufacturing establishments with 4,600,000 employees; and 200 mining establishments with 120,00 employees.

C: Earnings and Hours

TABLE C–1: Hours and Gross Earnings in Manufacturing and Nonmanufacturing Industries [1]

MANUFACTURING

Year and month	All manufacturing			Durable goods			Nondurable goods			Iron and steel and their products								
										Total: Iron and steel and their products			Blast furnaces, steel works, and rolling mills			Gray-iron and semi-steel castings		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
			Cents			*Cents*			*Cents*			*Cents*			*Cents*			*Cents*
19: Average	$23.86	37.7	63.3	$26.50	38.0	69.8	$21.78	37.4	58.2	$27.52	37.2	73.9	$29.88	35.3	84.5	$25.93	37.1	69.9
1: January	26.64	39.0	68.3	30.48	40.7	74.9	22.75	37.3	61.0	31.07	40.4	76.9	33.60	38.7	86.9	30.45	41.2	73.9
7: April	47.50	40.1	118.6	50.34	40.5	124.3	44.40	39.6	112.2	51.78	40.4	128.0	52.83	39.2	134.7	54.57	42.0	130.0
May	48.44	40.1	120.7	51.72	40.5	127.8	44.88	39.7	113.0	53.71	40.3	133.3	56.26	38.0	144.5	56.34	42.6	132.2
June	49.35	40.2	122.6	52.99	40.7	130.3	45.31	39.8	114.0	55.18	40.5	136.3	58.12	39.5	147.2	56.79	42.3	134.5
July	48.98	39.8	123.0	52.19	40.0	130.5	45.61	39.7	115.0	53.67	39.3	136.5	55.23	37.4	147.8	55.64	41.6	134.1
August	49.17	39.8	123.6	52.46	40.0	131.2	45.78	39.5	115.8	54.53	39.6	137.6	58.25	39.2	148.8	53.77	40.3	133.5
September	50.47	40.4	124.9	54.06	40.6	133.1	46.80	40.2	116.5	56.21	40.3	139.6	58.96	39.0	151.3	56.86	41.7	137.1
October	51.05	40.6	125.8	54.69	40.9	133.7	47.29	40.2	117.5	56.61	40.5	139.7	58.56	39.0	150.2	56.66	41.9	136.5
November	51.29	40.4	126.8	54.86	40.7	134.6	47.56	40.1	118.5	56.93	40.5	140.4	59.52	39.4	151.0	55.51	40.9	135.9
December	52.69	41.2	127.8	56.48	41.7	135.4	48.72	40.8	119.6	58.13	41.2	141.2	60.01	39.5	151.9	58.16	42.5	136.8
: January	52.07	40.5	128.5	55.46	40.9	135.5	48.45	40.0	121.0	57.43	40.6	141.4	60.58	39.5	153.3	57.31	41.6	137.9
February	51.75	40.2	128.7	54.77	40.5	135.2	48.56	39.9	121.7	56.99	40.4	140.9	59.74	39.5	151.3	57.24	41.2	139.0
March	52.06	40.4	128.9	55.23	40.9	135.2	48.66	39.9	121.9	57.25	40.6	141.2	59.26	39.4	151.0	58.47	41.8	140.1
April	51.68	40.0	129.1	54.82	40.4	135.6	48.26	39.6	121.9	56.47	39.9	141.5	58.37	38.6	151.3	56.39	40.2	140.4

Iron and steel and their products—Continued

Year and month	Malleable-iron castings			Steel castings			Cast-iron pipe and fittings			Tin cans and other tinware			Wirework			Cutlery and edge tools		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
			Cents			*Cents*			*Cents*			*Cents*			*Cents*			*Cents*
19: Average	$24.16	36.0	67.1	$27.97	36.9	75.9	$21.33	36.4	58.1	$23.61	38.8	61.1	$25.96	38.1	68.3	$23.11	39.1	60.1
1: January	28.42	40.2	70.7	32.27	41.4	78.0	25.42	40.5	62.6	25.31	39.8	63.9	28.27	39.7	71.2	25.90	40.5	65.2
7: April	53.52	41.0	130.6	53.01	40.4	131.1	48.41	42.4	114.2	44.85	40.1	112.7	49.79	40.7	122.4	46.84	41.6	112.6
May	55.02	41.0	134.1	54.33	40.5	134.2	51.86	43.4	119.3	45.66	40.2	113.8	49.72	39.8	125.0	46.94	41.1	114.1
June	54.36	39.8	136.5	56.18	40.5	138.7	52.27	43.0	121.5	47.61	40.3	118.1	52.19	40.1	130.0	48.85	41.9	116.4
July	55.08	40.4	136.4	56.25	40.3	139.5	49.65	41.4	119.6	51.34	41.5	124.1	51.85	39.7	131.1	47.45	41.2	115.1
August	51.68	37.7	137.2	54.71	39.1	139.9	46.79	39.9	118.4	53.57	42.5	125.9	51.45	39.6	130.0	46.56	40.2	115.8
September	55.66	40.3	139.0	56.50	39.9	141.5	48.34	40.5	118.4	55.28	43.4	127.5	53.70	40.3	132.3	49.20	42.2	117.1
October	57.73	41.2	141.1	58.15	40.7	142.9	49.60	41.4	119.8	53.74	42.5	127.0	54.35	41.0	132.6	49.57	42.1	117.5
November	58.06	41.2	141.7	58.73	41.0	143.4	48.93	40.7	120.1	52.16	41.1	126.8	56.10	42.0	133.5	50.48	42.3	119.2
December	59.18	41.8	141.4	60.05	41.6	144.3	50.98	42.2	120.6	53.92	42.5	126.5	57.83	42.6	135.6	50.26	42.0	119.7
8: January	59.03	41.5	142.0	59.48	41.1	144.6	49.67	40.4	122.5	51.45	40.7	126.3	56.36	41.8	134.7	49.91	41.8	119.2
February	57.44	40.8	140.5	58.52	40.5	144.5	48.39	39.5	122.6	50.44	40.1	126.3	55.47	41.1	134.9	50.09	41.6	119.3
March	57.79	40.8	141.4	59.88	41.3	145.0	49.14	40.1	122.8	49.76	39.8	125.1	55.70	41.0	135.5	50.30	41.3	120.6
April	56.77	39.8	142.4	60.13	41.2	145.8	47.50	38.6	123.6	49.65	39.8	125.0	54.96	40.4	136.0	49.90	41.2	120.5

Iron and steel and their products—Continued

Year and month	Tools (except edge tools, machine tools, files, and saws)			Hardware			Plumbers' supplies			Stoves, oil burners, and heating equipment, not elsewhere classified			Steam and hot-water heating apparatus and steam fittings			Stamped and enameled ware and galvanizing		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
			Cents			*Cents*			*Cents*			*Cents*			*Cents*			*Cents*
19: Average	$24.49	39.7	61.8	$23.13	38.9	59.3	$25.80	38.2	67.6	$25.25	38.1	66.6	$26.19	37.6	69.7	$23.92	38.1	62.7
1: January	29.49	44.7	66.2	25.24	40.9	62.1	27.13	39.0	69.6	26.07	38.7	67.8	30.98	42.5	73.2	26.32	39.4	66.5
7: April	50.48	42.9	117.6	49.70	41.5	115.3	50.22	40.6	123.6	50.11	40.7	123.0	51.63	40.6	127.1	48.44	40.3	120.1
May	50.86	42.5	119.8	49.15	41.7	117.9	49.92	40.0	124.7	50.38	40.2	124.9	51.39	40.1	128.2	49.96	40.1	124.7
June	51.22	42.4	120.7	49.53	41.4	119.5	51.81	40.4	128.3	51.00	40.2	126.9	53.72	40.8	131.6	50.34	39.9	126.1
July	49.40	41.0	120.4	49.29	41.0	120.1	52.45	40.3	130.1	50.65	40.0	126.6	52.74	39.6	133.1	50.11	39.3	127.4
August	50.10	41.0	122.1	48.19	40.2	121.0	49.93	38.9	128.5	49.75	39.0	127.5	50.60	38.1	132.9	50.40	39.5	127.6
September	52.39	42.2	124.3	50.43	41.3	122.2	52.38	40.0	131.0	53.32	40.9	130.5	54.54	40.4	135.2	51.72	39.9	129.7
October	52.47	42.1	124.8	51.22	41.7	122.8	54.65	40.7	134.3	55.15	41.6	132.6	55.46	41.1	135.0	52.40	40.4	129.8
November	52.97	42.2	125.5	51.58	41.6	123.3	56.42	41.4	136.4	53.39	40.1	133.1	57.64	41.8	138.0	52.81	40.5	130.5
December	54.44	43.0	126.6	52.55	42.2	124.5	57.00	41.6	137.0	56.22	42.0	133.9	58.66	42.2	138.9	54.72	41.5	132.0
8: January	54.24	42.6	127.3	53.29	42.4	125.6	55.61	40.8	136.5	54.24	40.3	134.5	54.87	40.3	136.3	53.65	40.7	131.9
February	54.02	42.3	127.8	52.79	42.3	124.9	55.26	40.4	136.7	54.59	40.2	135.8	57.07	41.3	138.3	52.42	40.0	131.1
March	54.19	42.5	127.9	52.63	42.0	125.2	56.54	41.2	137.4	54.12	40.1	135.2	56.53	40.9	138.0	52.78	40.3	131.1
April	54.15	41.9	128.5	52.05	41.6	125.1	56.27	40.6	138.6	54.34	39.9	136.3	56.05	40.8	137.7	52.93	40.1	132.1

See footnotes at end of table.

TABLE C–1: Hours and Gross Earnings in Manufacturing and Nonmanufacturing Industries [1]—Co

MANUFACTURING—Continued

Iron and steel and their products—Continued

Year and month	Fabricated structural and ornamental metalwork			Metal doors, sash, frames, molding and trim			Bolts, nuts, washers, and rivets			Forgings, iron and steel			Screw-machine products and wood screws			Steel barrels, kegs, and drums		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
			Cents			Cents			Cents			Cents			Cents			Cents
1939: Average	$27.95	38.5	72.7	-------	-------	-------	$26.04	37.7	69.0	$29.45	38.4	76.7	-------	-------	-------	-------	-------	-------
1941: January	31.01	41.8	74.3	-------	-------	-------	29.58	41.9	70.6	36.75	45.0	81.8	-------	-------	-------	-------	-------	-------
1947: April	51.94	41.7	124.6	$52.99	41.5	127.6	50.72	41.4	122.3	59.68	41.3	144.3	$52.73	42.5	124.2	$51.16	40.9	
May	53.07	41.8	126.9	56.06	42.9	130.7	53.51	42.1	126.8	60.22	41.3	145.9	53.37	42.3	126.2	51.75	40.5	
June	54.90	42.0	130.6	55.45	42.7	129.1	54.49	41.5	131.1	61.93	41.1	150.8	53.79	42.1	127.8	53.49	41.0	
July	53.54	40.7	131.6	52.42	40.8	128.6	51.88	40.0	129.5	59.07	39.7	148.9	52.93	41.4	127.8	53.04	40.3	
August	55.64	41.7	133.4	54.12	41.2	131.5	52.45	40.0	131.0	57.42	38.7	148.4	52.38	40.8	128.4	53.38	40.3	
September	55.87	41.6	134.4	55.75	42.0	132.8	53.08	40.2	131.7	62.38	40.9	152.6	53.91	41.9	128.5	55.08	40.7	
October	57.60	42.6	135.2	56.48	42.0	134.4	56.52	42.1	133.9	65.54	41.8	156.9	55.02	42.1	130.6	52.13	39.4	
November	57.31	42.0	136.8	57.11	42.7	133.9	55.98	41.3	135.3	65.00	41.4	157.2	54.55	41.6	131.1	53.81	40.8	
December	58.81	42.7	137.8	58.97	43.5	135.4	57.79	42.5	135.9	67.20	42.2	159.1	56.77	43.0	131.9	57.08	42.5	
1948: January	55.76	41.1	135.6	56.49	42.0	134.6	55.68	40.6	136.9	65.74	41.6	158.1	56.54	42.7	132.4	55.31	*41.0	
February	55.31	40.9	135.3	55.88	41.7	134.2	57.38	42.0	136.4	65.51	41.4	158.3	56.62	42.8	132.4	51.35	38.2	
March	56.15	41.1	137.1	57.35	41.1	138.5	59.20	43.1	137.2	64.42	40.8	157.9	56.99	42.9	132.7	53.16	39.5	
April	55.77	40.8	136.5	57.97	41.2	139.2	58.44	42.5	137.5	63.10	40.0	157.7	56.30	42.4	132.7	53.49	39.2	

Year and month	Iron and steel and their products—Continued			Electrical machinery									Machinery, except electrical		
	Firearms			Total: Electrical machinery			Electrical equipment			Radios and phonographs			Communication equipment			Total: Machinery, except electrical		
			Cents			Cents			Cents			Cents			Cents			Cents
1939: Average	$27.28	41.3	66.0	$27.09	38.6	70.2	$27.95	38.7	72.2	$22.34	38.5	58.1	$28.74	38.3	75.1	$29.27	39.3	
1941: January	35.09	48.6	72.2	31.84	42.4	75.1	33.18	43.4	76.5	24.08	38.2	63.2	32.47	41.4	78.4	34.36	44.0	
1947: April	54.62	41.1	133.0	48.36	40.0	121.0	50.22	40.2	125.0	42.31	38.9	108.8	47.84	40.5	117.9	54.25	41.5	
May	56.38	41.3	136.6	50.24	39.8	126.4	52.65	40.1	131.4	44.57	39.1	113.9	46.52	39.1	118.9	55.20	41.4	
June	57.54	41.6	138.3	51.57	39.8	129.5	54.04	40.5	133.5	43.98	38.2	115.1	49.62	38.8	127.7	56.30	41.3	
July	56.69	41.0	138.4	52.00	39.8	130.8	53.84	40.1	134.4	46.17	39.6	116.6	50.57	38.7	130.6	56.06	40.9	
August	56.65	40.8	138.9	51.53	39.2	131.4	53.50	39.6	135.0	44.29	38.0	116.7	51.18	38.9	131.6	55.74	40.5	
September	58.51	41.8	140.1	53.46	40.4	132.5	55.05	40.5	136.0	47.24	40.0	118.2	53.66	40.2	133.5	57.36	41.1	
October	57.90	41.2	140.5	54.10	40.6	133.1	55.35	40.6	136.4	47.98	40.2	119.3	55.81	41.4	135.0	57.87	41.3	
November	58.53	41.1	142.4	54.32	40.6	133.9	55.76	40.6	137.4	47.61	39.8	119.7	55.94	41.4	135.2	57.92	41.2	
December	60.01	42.0	142.9	55.34	41.1	134.6	56.99	41.2	138.4	48.59	40.4	120.3	56.15	41.7	134.8	59.67	42.2	
1948: January	59.88	41.8	143.4	54.82	40.5	135.2	56.77	40.8	139.1	47.56	39.6	120.2	54.64	40.5	135.1	59.13	41.8	
February	60.80	42.1	144.6	54.50	40.4	134.8	56.11	40.6	138.2	47.00	39.2	120.0	55.83	41.1	135.9	58.65	41.4	
March	62.33	42.7	146.0	54.41	40.3	135.0	56.23	40.5	138.8	47.00	39.2	119.9	54.78	40.5	135.5	59.16	41.6	
April	61.16	41.8	146.3	53.86	39.9	135.0	55.70	40.2	138.7	47.01	39.1	120.1	53.49	39.6	135.3	59.29	41.5	

Machinery, except electrical—Continued

Year and month	Machinery and machine-shop products			Engines and turbines			Tractors			Agricultural machinery, excluding tractors			Machine tools			Machine-tool accessories		
			Cents			Cents			Cents			Cents			Cents			Cents
1939: Average	$28.76	39.4	73.0	$28.67	37.4	76.7	$32.13	38.3	83.9	$26.46	37.0	71.6	$32.25	42.9	75.2	$31.78	40.9	
1941: January	34.00	43.7	77.7	36.50	44.1	82.7	36.03	41.5	86.8	29.92	39.5	75.7	40.15	50.4	79.7	37.90	50.0	
1947: April	53.31	41.6	127.9	57.27	41.3	139.4	54.73	40.3	135.8	51.93	40.3	128.9	56.06	42.0	133.4	58.66	41.8	
May	54.44	41.6	130.7	58.74	41.2	142.8	56.95	39.9	142.6	53.18	40.0	133.0	57.13	42.1	135.7	58.92	41.7	
June	55.53	41.5	133.6	60.20	41.2	146.0	57.57	40.0	144.7	55.80	40.8	136.8	58.31	42.2	138.1	59.14	41.6	
July	55.00	40.8	134.9	59.51	40.3	147.7	57.77	40.1	144.0	56.83	41.0	138.5	56.78	41.6	136.6	58.42	41.2	
August	55.07	40.9	135.3	61.34	40.9	151.0	57.67	40.0	144.3	56.29	40.3	139.2	57.77	41.4	139.4	57.43	39.9	
September	56.41	41.3	137.0	60.16	40.5	149.4	59.08	40.7	145.0	57.97	40.6	141.7	58.69	41.8	140.5	61.16	41.2	
October	56.75	41.3	137.4	58.72	39.6	148.9	60.17	41.1	146.5	58.36	40.9	143.9	59.25	42.1	140.8	61.42	41.4	
November	57.03	41.4	138.1	62.04	41.2	151.6	60.13	41.1	146.4	55.91	39.6	141.5	59.53	41.9	141.2	61.30	41.1	
December	59.22	42.7	139.1	61.14	40.5	151.9	60.24	41.3	145.9	57.85	40.6	142.4	61.34	43.1	142.4	63.47	42.4	
1948: January	58.33	42.0	138.9	62.79	41.3	152.9	60.10	41.1	146.2	57.84	40.4	143.3	59.64	42.0	142.0	63.58	42.2	
February	58.11	41.8	139.2	62.66	41.6	152.7	59.40	40.6	146.4	57.80	40.4	143.2	60.54	42.3	143.2	63.59	42.2	
March	58.29	41.8	139.5	63.31	41.6	152.5	59.43	40.6	146.4	59.55	41.0	145.1	60.58	42.3	143.3	62.30	41.8	
April	58.63	41.7	140.3	62.31	41.2	151.9	60.08	39.4	152.6	58.87	40.5	145.5	60.37	42.0	143.9	63.50	42.0	

See footnotes at end of table.

TABLE C-1: Hours and Gross Earnings in Manufacturing and Nonmanufacturing Industries [1]—Con.

MANUFACTURING—Continued

Machinery, except electrical—Continued

Year and month	Textile machinery			Typewriters			Cash registers; adding, and calculating machines			Washing machines, wringers, and driers, domestic			Sewing machines, domestic and industrial			Refrigerators and refrigeration equipment		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
			Cents			*Cents*			*Cents*			*Cents*			*Cents*			*Cents*
1939: Average	$26.19	39.8	66.0	$23.98	37.3	64.3	$30.38	37.2	81.2	-------	-------	-------	-------	-------	-------	-------	-------	-------
1941: January	30.13	44.6	67.7	26.40	39.1	67.5	34.78	41.4	84.6	-------	-------	-------	-------	-------	-------	-------	-------	-------
April	53.14	42.5	125.1	49.29	41.2	119.7	61.83	42.4	146.9	$53.91	42.8	125.8	$54.46	41.2	132.8	$53.42	40.7	131.2
May	54.10	42.6	126.9	50.75	41.6	121.9	61.68	42.3	146.8	54.89	42.5	129.1	56.25	41.7	135.5	53 19	40.4	131.7
June	54.88	42.6	128.9	51.58	42.8	120.9	63.67	41.9	151.0	55.16	41.8	131.8	58.97	41.7	141.5	54.77	40.4	135.6
July	54.79	41.9	130.1	52.33	43.7	119.8	60.35	40.6	149.0	54.85	41.6	131.8	58.43	41.0	142.5	55.37	40.8	135.6
August	51.91	40.2	129.1	51.22	40.5	126.5	59.52	40.2	148.7	52.82	40.1	131.6	56.35	40.0	140.9	52.22	38.5	135.6
September	56.08	42.2	132.9	51.91	40.6	128.0	63.21	42.1	151.3	54.17	41.0	132.0	60.72	42.0	145.4	54.18	39.5	137.3
October	55.77	42.1	132.5	54.04	42.0	128.8	63.82	42.3	152.3	57.13	42.4	134.6	62.27	42.5	146.9	56.33	40.7	138.3
November	56.88	42.1	135.5	55.54	42.5	130.6	63.29	42.1	151.8	57.96	42.7	135.8	62.17	42.4	146.5	54.41	39.8	136.7
December	58.56	43.1	135.8	55.89	42.9	130.1	65.67	42.9	153.7	60.42	43.7	138.4	63.21	42.9	147.2	57.05	41.2	138.4
1948: January	59.21	43.1	137.4	55.59	42.6	130.5	65.39	42.4	155.7	58.28	42.6	136.9	62.74	42.4	147.6	57.62	41.6	138.6
February	59.50	42.8	139.0	55.68	42.4	131.2	64.11	41.6	155.4	57.69	41.8	138.2	63.14	42.8	147.6	52.55	38.1	137.8
March	61.40	43.7	140.6	54.62	42.0	130.1	65.30	42.2	156.1	56.38	42.2	137.0	63.90	43.0	148.3	55.80	39.9	139.9
April	61.01	43.2	141.0	54.63	42.0	130.1	65.62	42.1	157.3	58.15	42.1	138.3	62.76	42.3	147.6	56.19	40.3	139.8

Transportation equipment, except automobiles

Year and month	Total: Transportation equipment, except automobiles			Locomotives			Cars, electric and steam-railroad			Aircraft and parts, excluding aircraft engines			Aircraft engines			Shipbuilding and boatbuilding		
			Cents			*Cents*			*Cents*			*Cents*			*Cents*			*Cents*
1939: Average	$30.51	38.9	78.5	$28.33	36.7	77.1	$26.71	36.0	74.1	$30.34	41.5	74.5	$36.58	44.1	83.5	$31.91	38.0	83.5
1941: January	35.69	43.1	82.8	34.79	42.8	81.4	29.57	38.5	76.8	34.13	44.7	77.6	42.16	47.2	89.2	37.69	42.0	89.3
April	54.29	39.8	136.3	52.20	37.2	140.2	53.51	40.9	131.0	52.54	39.6	132.6	53.77	39.7	135.3	56.97	39.9	142.6
May	55.31	40.2	137.6	59.09	40.2	146.9	54 80	41.4	132.3	52.42	39.5	132.8	54.77	39.6	138.3	57.91	40.4	143.3
June	55.59	40.1	138.7	59.10	40.0	147.8	55.76	41.1	135.6	52.58	39.2	134.1	55.44	38.8	142.8	57.79	40.7	142.1
July	56.02	40.1	139.5	59.26	39.7	149.4	56.83	41.7	136.4	54.48	39.7	137.2	56.19	39.2	143.5	56.77	39.9	142.1
August	55.75	39.6	140.6	61.75	40.6	152.2	51.89	38.6	134.3	55.30	40.0	138.1	56.58	39.2	144.3	56.93	39.3	144.7
September	56 54	39.7	142.4	64.60	41.3	156.7	55.03	39.9	137.8	54.44	39.3	138.6	58.43	40.0	146.0	57.71	39.5	146.2
October	58.07	40.4	143.7	62.32	40.6	153.4	58.09	41.4	140.4	56.01	40.2	139.5	59.19	40.5	146.1	59.31	39.8	149.0
November	56.42	38.6	146.2	61.64	39.8	154.9	57.61	40.4	142.5	55.48	39.3	141.3	57.52	39.4	146.1	55.20	36.1	152.9
December	59.79	40.8	146.5	63.63	40.7	156.5	59.84	41.4	144.7	57.12	40.6	140.6	60.39	41.2	146.5	61.74	40.5	152.5
1948: January	59.56	40.3	147.9	62.34	40.1	155.3	58.51	40.7	143.9	55.53	39.4	140.8	59.30	40.6	146.1	64.05	40.9	156.7
February	58.67	39.6	148.2	61.01	39.2	155.5	58.02	40.2	144.2	56.13	39.9	140.6	58.29	40.1	145.2	61.54	38.9	158.2
March	59.35	40.3	147.1	63.63	40.2	158.3	58.90	40.9	143.9	56.28	40.1	140.9	59.53	40.6	146.7	62.07	40.3	153.9
April	59.79	40.4	147.8	64.34	39.9	161.3	58.34	40.7	144.1	57.75	40.6	141.7	60.33	40.5	149.1	62.04	40.2	154.1

Transportation equipment, except automobiles—Con.

Year and month	Motorcycles, bicycles, and parts			Automobiles			Nonferrous metals and their products											
							Total: Nonferrous metals and their products			Smelting and refining, primary, of nonferrous metals			Alloying; and rolling and drawing of nonferrous metals, except aluminum			Clocks and watches		
			Cents			*Cents*			*Cents*			*Cents*			*Cents*			*Cents*
1939: Average	-------	-------	-------	$32.91	35.4	92.9	$26.74	38.9	68.7	$26.67	38.2	69.9	$28.77	39.6	72.9	$22.27	37.9	58.7
1941: January	-------	-------	-------	37.69	38.9	96.9	30.47	41.4	73.6	29.21	38.7	75.5	35.96	44.0	81.8	23.90	38.9	61.4
April	$52.36	41.3	126.9	54.14	38.5	140.6	50.30	40.8	123.4	51.05	40.8	125.2	53.45	40.9	130.5	44.71	40.4	110.8
May	54.60	41.8	130 7	55.96	38.3	146.3	51.15	40.6	126.0	52.87	41.4	127.8	53.01	39.8	133.0	45.07	40.1	112.4
June	55.52	41.4	134.1	57.48	38.7	148.5	52.06	40.5	128.6	54.20	41.6	130.3	55.10	39.7	137.9	45.82	40.0	114.5
July	56.35	42.3	133.3	56.44	37.7	149.6	51.12	39.7	128.9	53.89	41.3	130.4	54.13	39.2	138.1	44.58	39.1	114.0
August	55.58	41.0	135.5	55.76	37.2	150.0	51.07	39.5	129.4	53.98	40.8	132.2	52.62	38.0	138.4	45.03	39.1	115.1
September	55.94	41.0	136.6	59.35	39.2	151.5	52.82	40.2	130.9	55.82	41.2	135.5	54.37	38.9	139.6	46.87	40.4	116.0
October	58.94	42.5	138.8	60.30	39.5	152.6	53.59	40.8	131.2	54.89	40.9	134.2	55.19	39.4	140.1	47.54	40.8	116.7
November	58.94	42.0	140.4	61.30	39.8	154.0	54.27	41 1	132.0	55.69	41.2	135.1	55.93	39.7	141.0	48.64	41.4	117.5
December	58.96	42 3	139.3	64.64	41.4	156.3	55.53	41.8	132.7	55.44	41.2	134.6	57.26	40.5	141.2	48.69	41.9	116.4
1948: January	55.33	40.3	137.3	60.96	39.6	153.8	55.06	41.2	133.6	55.85	41.1	136.0	57.30	40.4	141.8	47.63	40.2	118.5
February	55.65	39.8	140.0	59.00	38.1	154.8	55.07	41.2	133.8	55.58	41.0	135.7	57.73	40.6	142.2	48.59	41.0	118.6
March	55.88	40.4	138.4	59.66	38.9	153.4	55.23	41.1	134.4	55.31	40.5	136.6	58.25	40.8	142.9	49.15	41.1	119.6
April	56.36	40.3	139.8	58.70	38.5	152.6	54.85	40.8	134.3	56.49	41.1	137.5	56.84	40.0	142.2	49 09	40.8	120.5

See footnotes at end of table.

TABLE C-1: Hours and Gross Earnings in Manufacturing and Nonmanufacturing Industries [1]—Co

MANUFACTURING—Continued

Nonferrous metals and their products—Continued

Year and month	Jewelry (precious metals) and jewelers' findings			Silverware and plated ware			Lighting equipment			Aluminum manufactures		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
			Cents			Cents			Cents			Cents
1939: Average	$26.36	39.4	66.0	$26.03	40.7	64.3	$25.73	37.1	69.3	$27.49	39.3	69.9
1941: January	26.43	39.1	66.4	27.37	41.4	66.6	28.19	39.3	71.7	32.85	42.0	78.2
1947: April	47.09	41.0	115.9	58.01	45.6	127.5	47.63	39.2	121.5	48.55	39.7	122.1
May	47.52	40.5	118.0	58.50	45.8	127.8	50.87	39.5	128.2	48.52	39.2	124.2
June	47.34	40.7	117.6	58.97	45.7	129.2	50.44	38.7	130.5	49.20	39.0	126.7
July	44.44	39.0	114.7	58.72	45.3	130.0	47.74	36.7	130.2	48.86	38.4	127.2
August	46.40	39.8	117.2	57.20	44.1	129.9	48.78	37.4	130.5	49.34	38.9	126.6
September	50.32	42.0	120.4	60.93	46.1	132.1	50.02	38.4	130.4	49.74	38.6	128.7
October	52.97	43.6	122.2	61.31	46.4	132.1	51.73	39.3	131.7	52.02	39.7	130.0
November	53.39	42.7	125.5	61.65	45.9	134.4	52.51	40.0	131.4	52.15	39.8	130.9
December	55.53	44.4	125.4	63.80	47.2	135.3	54.11	40.5	133.6	52.86	40.1	132.0
1948: January	51.69	41.9	123.7	62.54	46.3	135.4	53.92	39.8	135.6	53.35	40.2	132.9
February	52.98	43.6	124.9	62.52	46.1	135.6	52.86	39.3	134.5	52.75	39.6	133.0
March	52.17	42.2	123.7	63.81	46.5	137.4	53.22	39.2	135.9	52.05	39.4	132.2
April	51.39	41.1	124.5	62.09	45.7	136.0	52.90	38.8	136.4	52.53	39.7	132.3

Year and month	Lumber and timber basic products			Lumber and timber basic products—Con.			Furniture and finished lumber products						Stone, clay, and glass products		
	Total: Lumber and timber basic products			Sawmills and logging camps			Planing and plywood mills			Total: Furniture and finished lumber products			Furniture		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
			Cents			Cents			Cents			Cents			Cents
1939: Average	$19.06	39.0	48.9	$18.29	38.4	47.6	$22.17	41.1	54.0	$19.95	38.5	51.8	$20.51	38.9	53.0
1941: January	20.27	38.9	52.1	19.59	38.4	51.0	22.51	40.5	55.4	20.90	38.7	54.0	21.42	39.0	55.2
1947: April	41.01	41.4	99.0	39.81	40.9	97.3	45.90	43.3	105.9	42.87	41.5	103.2	43.99	41.4	106.4
May	43.06	42.0	102.5	41.95	41.7	100.6	47.65	43.5	109.7	43.45	41.5	104.6	44.21	41.2	107.4
June	45.04	42.8	105.3	44.14	42.5	103.9	48.84	44.1	110.7	44.24	41.7	106.1	45.04	41.6	108.5
July	43.57	42.2	103.3	42.86	42.1	101.8	46.58	42.6	109.3	43.51	41.1	105.8	44.12	40.9	107.9
August	45.32	43.3	104.8	45.05	43.1	104.6	48.89	44.2	110.7	44.09	41.2	107.0	44.58	41.0	108.9
September	45.41	42.8	106.2	44.58	42.5	104.9	48.94	43.8	111.8	45.38	41.5	109.3	46.24	41.4	111.7
October	45.23	42.6	106.3	44.09	42.2	104.5	50.12	44.3	113.2	46.53	42.1	110.5	47.76	42.3	113.0
November	45.30	42.2	107.4	44.27	41.9	105.7	49.60	43.2	114.7	46.32	41.8	110.8	48.07	42.3	113.7
December	45.65	43.2	105.6	44.20	42.8	103.3	51.61	44.8	115.1	47.72	42.7	111.7	49.10	42.9	114.5
1948: January	44.49	42.4	105.0	42.94	42.0	102.2	50.67	43.9	115.2	47.02	41.9	112.2	48.54	42.2	115.1
February	45.01	41.7	108.0	43.41	41.1	105.6	51.31	43.8	117.1	46.68	41.4	112.7	48.38	41.9	115.5
March	45.32	42.3	107.1	43.86	42.0	104.4	51.06	43.8	116.6	47.00	41.7	112.6	48.44	41.9	115.7
April	44.92	41.6	108.0	43.07	40.9	105.3	52.20	44.3	118.0	46.26	40.9	113.1	47.25	40.9	116.2

Year and month	Caskets and other morticians' goods			Wood preserving			Stone, clay, and glass products		
	Total: Stone, clay, and glass products								
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
			Cents			Cents			Cents
1939: Average	-------	-------	-------	-------	-------	-------	$23.94	37.6	63.7
1941: January	-------	-------	-------	-------	-------	-------	25.02	37.4	66.9
1947: April	$45.49	42.1	107.7	$39.78	41.4	96.0	46.49	40.5	114.8
May	46.88	42.2	110.8	41.66	43.0	96.9	47.24	40.3	117.2
June	46.99	42.2	111.1	41.14	41.8	98.4	48.54	40.8	118.9
July	44.32	40.2	110.3	41.05	41.6	97.8	48.00	40.1	119.7
August	45.69	40.6	112.2	42.10	42.0	100.1	49.06	40.6	120.8
September	47.06	41.6	112.8	42.41	42.2	100.5	49.57	40.4	122.7
October	47.00	41.1	113.9	42.19	41.5	101.7	50.38	40.8	123.5
November	47.35	40.9	115.0	39.98	39.7	100.7	50.47	40.5	124.6
December	49.01	42.2	115.7	40.50	39.8	101.7	51.00	41.0	124.4
1948: January	48.52	41.8	115.7	39.71	39.2	101.4	50.10	40.0	125.2
February	48.85	41.8	115.5	36.95	35.8	103.1	49.98	39.8	125.6
March	49.01	42.3	114.0	39.59	38.6	102.6	51.45	40.8	126.1
April	48.23	41.3	114.9	41.15	40.2	103.8	51.78	40.8	127.0

Stone, clay, and glass products—Continued

Year and month	Glass and glassware			Glass products made from purchased glass			Cement			Brick, tile, and terra cotta			Pottery and related products			Gypsum		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
			Cents			Cents			Cents			Cents			Cents			Cents
1939: Average	$25.32	35.2	72.1	-------	-------	-------	$26.67	38.2	69.9	$20.55	37.8	54.3	$22.74	37.2	62.5	-------	-------	-------
1941: January	28.02	36.3	77.2	-------	-------	-------	26.82	37.9	70.9	21.74	36.9	58.7	22.92	36.4	63.5	-------	-------	-------
1947: April	48.88	39.7	123.2	$40.69	40.6	100.2	45.82	42.1	108.9	42.58	39.7	106.2	44.42	38.9	115.2	$50.45	45.2	111.6
May	48.66	39.3	123.9	41.94	40.8	102.8	44.46	39.3	113.2	45.77	40.6	112.3	45.45	38.9	117.1	52.05	45.8	113.6
June	50.42	40.0	126.4	42.93	40.8	105.3	51.59	42.7	120.8	45.66	41.0	110.9	45.78	38.7	118.6	52.55	45.3	116.0
July	49.34	38.6	128.1	40.87	39.6	103.1	51.72	41.9	123.5	45.25	40.5	111.3	44.86	37.9	119.2	54.91	46.1	119.1
August	50.40	39.5	128.0	41.88	40.2	104.2	52.93	42.5	124.4	46.06	40.9	112.1	46.48	38.8	120.1	55.39	45.7	121.2
September	51.57	39.2	131.7	42.91	40.1	107.1	52.68	41.8	126.1	46.51	40.9	113.3	46.14	38.5	120.7	54.68	45.0	121.5
October	52.27	39.4	132.8	44.41	41.1	108.1	52.32	42.0	124.5	47.37	41.3	114.3	48.18	39.6	122.1	56.70	45.9	123.5
November	53.05	39.2	135.4	43.87	40.4	108.5	52.19	41.9	124.5	46.81	40.5	114.8	48.25	39.4	122.7	56.35	45.3	124.4
December	53.07	39.5	134.4	46.16	42.3	109.2	51.94	42.0	123.7	47.46	41.2	114.6	48.55	39.2	123.8	56.53	45.6	124.0
1948: January	52.49	38.0	138.3	44.48	41.1	108.3	51.21	41.4	123.7	46.74	40.5	115.0	47.32	38.2	123.4	55.94	45.3	123.5
February	53.00	38.8	136.8	44.18	40.0	110.5	51.07	41.7	122.6	45.52	38.9	116.3	46.98	38.5	123.0	54.58	44.4	122.9
March	54.42	40.0	136.2	43.96	40.5	108.5	52.22	42.4	123.1	47.54	40.5	116.6	48.17	39.4	123.3	55.71	45.0	123.8
April	54.12	39.9	135.5	43.16	39.6	108.9	53.35	42.3	126.6	48.39	40.6	118.6	48.45	39.2	124.9	58.98	46.8	126.0

See footnotes at end of table.

ABLE C-1: Hours and Gross Earnings in Manufacturing and Nonmanufacturing Industries [1]—Con.

MANUFACTURING—Continued

Year and month	Stone, clay, and glass products—Continued												Textile-mill products and other fiber manufactures					
	Lime			Marble, granite, slate, and other products			Abrasives			Asbestos products			Total: Textile-mill products and other fiber manufactures			Cotton manufactures, except smallwares		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
			Cents			*Cents*			*Cents*			*Cents*			*Cents*			*Cents*
[illegible]: Average	-------	-------	-------	$26.18	36.9	71.4	-------	-------	-------	$24.43	39.0	62.7	$16.84	36.6	46.0	$14.26	36.7	38.9
[illegible]: January	-------	-------	-------	24.29	34.6	70.8	-------	-------	-------	27.26	41.3	66.0	18.01	36.9	48.8	15.60	37.2	41.9
[illegible]: April	$46.53	46.6	99.4	45.51	42.1	107.9	$49.72	39.7	125.3	52.46	42.8	122.5	40.12	39.1	102.7	38.53	39.3	98.1
May	47.19	46.2	101.7	46.67	42.9	108.5	50.10	39.6	126.4	52.58	42.6	123.5	39.89	38.9	102.5	37.73	38.8	97.4
June	48.45	46.0	104.5	46.07	42.2	108.5	48.66	39.1	124.4	54.21	42.9	126.4	39.54	38.6	102.4	37.10	38.3	97.0
July	47.23	44.9	104.2	45.48	42.1	107.9	50.00	39.3	127.3	54.90	43.3	126.8	39.48	38.4	102.8	37.21	38.3	97.3
August	48.90	44.8	106.9	46.61	41.4	112.6	51.26	39.2	130.6	53.53	42.2	127.7	39.44	38.2	103.2	37.50	38.4	97.7
September	49.23	45.0	108.1	47.56	42.2	112.7	54.57	40.3	135.6	52.30	41.3	126.6	41.39	39.5	104.8	38.55	39.2	98.5
October	51.96	46.1	108.5	48.60	42.5	114.3	54.30	40.4	134.5	52.57	41.3	127.3	41.94	39.7	105.5	39.22	39.6	99.1
November	50.33	45.8	108.9	46.27	40.2	115.2	55.68	40.7	137.0	54.05	41.9	129.2	43.73	40.1	109.0	42.47	40.4	105.1
December	50.48	46.4	108.5	48.68	41.9	116.0	60.68	44.0	137.3	53.85	41.8	128.9	45.15	41.0	110.0	43.64	41.1	106.1
[illegible]: January	49.10	44.2	109.4	46.89	40.6	115.3	59.07	44.4	133.1	*53.98	*41.4	*130.5	45.19	40.5	111.5	43.81	40.7	107.7
February	47.86	43.7	109.1	46.23	40.4	114.6	58.38	42.6	137.2	54.04	40.9	132.2	45.79	40.2	113.9	43.43	40.1	108 3
March	50.58	45.8	110.2	47.57	40.9	116.2	60.62	42.6	142.4	54.49	41.3	131.8	46.32	40.6	114.0	43.98	40.7	108.1
April	52.08	46.3	112.7	47.97	40.9	116.0	59.02	41.5	142.3	55.11	41.2	133.8	45.46	39.9	113.8	43.08	40.1	107.6

Textile-mill products and other fiber manufactures—Continued

Year and month	Cotton smallwares			Silk and rayon goods			Woolen and worsted manufactures, except dyeing and finishing			Hosiery			Knitted cloth [2]			Knitted outerwear and knitted gloves		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
			Cents			*Cents*			*Cents*			*Cents*			*Cents*			*Cents*
[illegible]: Average	$18.22	39.0	47.4	$15.78	36.5	42.9	$19.21	36.4	52.8	$18.89	35.6	53.6	$18.15	38.4	46.8	$17.14	37.0	46.1
[illegible]: January	19.74	39.3	50.3	16.53	35.7	46.1	21.78	37.9	57.6	18.51	33.8	55.0	19.90	37.9	50.3	17.65	35.8	48.9
[illegible]: April	39.68	39.5	101.7	40.89	40.2	101.6	45.26	39.1	115.9	36.35	35.9	101.0	39.49	39.9	98.9	35.58	37.3	95.2
May	39.60	39.1	101.4	41.73	41.0	101.9	45.28	39.2	115.8	36.42	35.9	101.4	40.06	40.3	98.5	35.51	37.6	93.9
June	38.85	38.5	101.0	40.97	40.3	101.7	45.75	39.4	116.0	35.39	35.2	100.5	40.32	40.3	98.2	35.11	37.0	94.1
July	39.68	39.1	101.6	41.17	40.3	102.3	45.33	39.1	116.0	36.37	35.3	103.0	40.91	40.8	99.1	34.51	36.8	92.6
August	38.58	38.2	100.9	41.65	40.0	104.3	42.28	36.6	115.6	38 08	36.8	103.4	41.11	40.7	100.1	35.42	37.6	92.6
September	40.67	39.7	102.4	43.23	40.9	105.7	46.99	40.2	116.9	39.48	37.7	104.9	41.71	40.5	102.7	35.86	37.5	95.1
October	40.49	39.1	103.5	43.57	41.0	106.2	46.70	39.7	117.8	41.00	38.3	106.9	42.21	41.1	102.1	38.01	38.8	96.9
November	40.13	38.7	103.6	44.84	41.2	108.8	46.95	39.6	118.8	42.11	38.7	108.7	42.53	40.8	103.5	38.30	38.7	98.0
December	42.35	40.5	104.5	46.48	42.3	110.0	49.12	41.2	119.2	42.95	39.1	109.8	44.18	41.9	104.5	38.02	38.5	97.8
[illegible]: January	43.15	40.3	107.1	47.55	41.9	113.7	48.79	40.8	119.5	41.76	37.9	110.3	44.65	42.1	106.2	37.94	37.7	99.2
February	43.23	40.4	107.2	47.92	41.8	114.7	52.82	40.8	130.3	41.72	37.6	110.8	45.23	41.9	107.9	39.18	38.7	100.1
March	43.31	40.2	108.0	48.53	42.2	115.1	53.36	40.8	131.7	42.80	38.6	110.8	45.84	41.9	109.4	39.08	38.6	100.4
April	43.03	39.6	108.7	48.31	41.8	115.6	52.33	39.9	131.1	41.58	37.4	111.1	44.39	41.4	107.2	38.73	38.4	100.7

Textile-mill products and other fiber manufactures—Continued

Year and month	Knitted underwear			Dyeing and finishing textiles, including woolen and worsted			Carpets and rugs, wool			Hats, fur-felt			Jutegoods, except felts [3]			Cordage and twine		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
			Cents			*Cents*			*Cents*			*Cents*			*Cents*			*Cents*
[illegible]: Average	$15.05	36.9	41.0	$20.82	38.6	53.5	$23.25	36.1	64.4	$22.73	32.2	70.7	-------	-------	-------	-------	-------	-------
[illegible]: January	16.06	36.0	44.6	21.65	39.3	55.1	25.18	37.3	67.5	27.12	36.2	75.5	-------	-------	-------	-------	-------	-------
[illegible]: April	34.22	38.3	89.1	45.95	41.3	111.4	47.69	40.4	118.1	47.28	36.3	130.0	$40.98	42.7	97.7	$40.23	40.5	99.2
May	35.18	39.0	90.4	45.62	41.1	110.8	48.30	41.2	117.5	46.81	36.4	128.9	42.12	43.4	98.5	39.11	39.2	99.6
June	34.85	38.8	90.1	46.13	41.6	110.9	49.02	41.3	118.8	48.88	37.5	131.1	41.13	43.0	97.4	38.26	37.9	101.2
July	34.65	38.4	90.2	44.37	40.1	110.4	49.80	40.6	122.8	47.47	36.5	130.2	37.92	41.0	94.1	38.71	38.2	101.4
August	34.60	38.2	90.4	45.31	40.5	111.6	47.43	39.4	120.6	45.67	34.7	131.2	36.40	41.0	90.8	39.10	38.6	101.4
September	36.30	39.5	91.8	47.89	41.9	114.2	52.38	41.0	127.9	47.44	35.9	133.4	37.51	41.4	90.6	40.00	38.8	103.0
October	36.50	39.3	93.0	47.16	41.5	113.6	53.53	41.4	129.5	48.33	37.0	131.1	37.27	41.1	90.6	41.70	40.1	104.1
November	37.41	39.5	94.7	48.16	41.2	116.7	53.99	41.6	130.1	47.10	36.2	130.3	37.60	41.5	90.6	42.55	40.4	105.3
December	38.17	40.2	95.1	50.25	42.7	117.5	54.91	42.2	130.6	51.52	39.1	132.1	38.21	41.2	92.7	44.13	41.3	106.8
[illegible]: January	37.77	39.4	95.9	51.04	42.3	120.4	55.23	41.9	132.2	50.17	37.8	132.8	41.75	40.8	102.4	44.63	41.3	108.1
February	37.76	38.9	96.9	51.80	42.2	122.7	55.35	42.0	131.9	51.79	38.7	132.8	42.28	40.1	105.3	44.44	40.8	109.1
March	38.89	39.5	98.1	51.85	42.3	122.7	55.79	42.1	132.7	50.36	37.2	134.8	42.44	40.0	106.0	43.73	40.6	108.1
April	38.72	39.1	98.8	51.44	41.8	122.9	55.18	41.4	133.6	48.58	35.3	137.9	42.93	40.6	105.7	42.14	39.1	107.8

See footnotes at end of table.

TABLE C–1: Hours and Gross Earnings in Manufacturing and Nonmanufacturing Industries [1]—Co

MANUFACTURING—Continued

Apparel and other finished textile products

Year and month	Total: Apparel and other finished textile products			Men's clothing, not elsewhere classified			Shirts, collars, and nightwear			Underwear and neckwear, men's [2]			Work shirts			Women's clothing, not elsewhere classified		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
			Cents			*Cents*			*Cents*			*Cents*			*Cents*			Cents
1939: Average	$18.17	34.5	52.7	$19.32	33.2	58.1	$13.75	34.6	39.8	$14.18	35.4	40.1	$11.03	35.8	30.9	$19.20	33.9	56
1941: January	18.76	33.5	56.0	20.40	33.4	60.7	14.22	33.0	43.1	14.85	33.6	44.2	12.33	33.6	36.7	19.47	33.2	58
1947: April	35.44	35.5	99.9	40.45	36.7	109.4	31.62	36.5	86.8	32.18	34.3	93.7	25.09	34.2	72.8	42.32	34.4	123
May	35.36	35.8	98.8	41.49	37.2	110.5	32.01	36.9	86.7	32.41	35.1	92.9	25.11	34.5	73.0	41.58	34.6	119
June	35.77	36.0	99.4	41.35	37.2	110.4	31.54	36.8	85.7	33.55	36.4	91.6	24.91	34.3	72.6	41.87	35.0	118
July	36.50	35.8	102.0	40.17	36.5	109.8	31.24	36.3	86.2	33.79	36.0	93.8	26.56	36.2	73.5	43.81	34.8	124
August	36.57	35.2	103.8	38.66	35.1	109.0	30.74	36.0	85.2	31.51	34.5	91.4	25.54	35.4	72.2	45.49	34.6	128
September	37.64	36.0	104.6	41.06	36.8	110.6	32.38	36.9	87.8	33.05	35.5	93.2	25.59	34.6	74.0	45.78	35.0	127
October	38.78	36.9	105.1	42.78	37.9	112.0	33.42	37.8	88.5	35.00	36.9	94.9	25.15	33.7	74.5	46.91	35.8	127
November	37.09	36.4	101.9	42.24	37.5	111.6	33.75	38.0	88.9	35.09	36.5	96.1	24.90	34.1	72.8	43.82	35.3	123
December	39.00	37.1	105.2	43.11	37.7	113.6	34.12	38.1	91.8	35.56	37.3	95.3	24.32	34.1	71.2	46.76	36.2	127
1948: January	40.00	36.6	109.4	44.11	37.0	117.8	34.45	36.9	92.9	35.03	36.4	95.7	23.73	32.7	72.5	48.52	36.0	132
February	40.23	36.7	109.8	44.05	37.1	117.6	34.20	36.8	92.8	34.78	35.5	97.4	25.69	35.6	72.1	49.09	36.1	133
March	40.05	36.7	109.1	44.73	37.4	118.8	35.02	37.4	93.4	35.77	36.3	98.4	26.30	36.8	71.3	48.07	36.1	130
April	37.56	36.2	103.8	44.31	37.3	117.3	34.39	36.9	92.8	34.42	35.9	95.8	26.85	36.8	73.0	43.24	35.1	123

Apparel and other finished textile products—Continued

Year and month	Corsets and allied garments			Millinery			Handkerchiefs			Curtains, draperies, and bedspreads			Housefurnishings, other than curtains, etc.			Textile bags [3]		
			Cents			*Cents*			*Cents*			*Cents*			*Cents*			Cents
1939: Average	$17.15	37.5	45.6	$22.19	33.8	63.6	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------
1941: January	17.24	35.6	48.2	22.31	30.5	64.8	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------
1947: April	35.18	38.3	92.7	42.94	33.6	124.1	$29.36	34.2	85.7	$26.90	31.5	84.8	$35.67	37.6	94.4	$35.26	38.6	90
May	35.33	38.4	92.2	40.44	32.5	121.4	31.24	36.4	85.8	27.55	32.5	84.7	37.36	37.9	98.1	34.06	37.0	90
June	35.72	38.0	94.1	43.62	32.5	127.1	29.94	35.2	85.1	26.72	31.4	84.9	37.87	38.1	98.9	34.02	37.1	91
July	34.95	37.5	93.5	48.58	36.2	129.8	31.13	36.3	85.7	29.09	36.1	81.6	36.44	38.4	94.5	35.48	38.3	92
August	34.80	36.7	94.2	49.52	36.3	131.4	30.40	35.5	85.7	28.93	36.1	81.1	37.74	38.6	97.7	35.34	37.8	93
September	35.75	37.5	95.4	49.74	35.8	134.0	31.85	36.7	86.7	30.64	37.3	83.0	38.33	38.2	99.6	35.86	38.1	94
October	36.76	38.5	95.6	53.20	38.2	133.7	32.57	37.5	86.8	31.55	37.5	84.4	38.72	38.3	100.4	36.76	38.9	94
November	36.80	38.6	95.5	39.14	31.3	121.3	33.31	37.7	88.4	31.26	37.2	83.9	38.03	38.3	98.3	37.25	38.9	95
December	36.89	39.0	94.8	46.03	35.0	125.6	32.55	37.0	88.1	31.28	37.1	84.3	41.34	40.5	101.2	37.60	39.5	95
1948: January	37.37	38.0	98.5	53.14	37.3	136.5	30.46	34.4	88.4	31.05	36.8	85.6	38.54	38.2	99.9	37.20	38.9	95
February	37.07	37.9	97.9	58.69	39.3	143.3	32.66	36.4	89.7	30.17	35.9	85.4	36.83	37.7	96.5	36.23	38.0	95
March	38.14	38.5	99.3	53.27	37.1	140.4	34.21	37.1	92.2	30.73	35.4	88.2	38.29	38.1	100.0	35.80	37.1	96
April	37.39	37.8	99.1	50.59	36.0	137.3	33.09	36.1	91.7	29.40	33.3	89.1	38.12	38.0	99.4	36.45	37.2	97

Leather and leather products

Year and month	Total: Leather and leather products			Leather			Boot and shoe cut stock and findings			Boots and shoes			Leather gloves and mittens			Trunks and suitcases		
			Cents			*Cents*			*Cents*			*Cents*			*Cents*			Cents
1939: Average	$19.13	36.2	52.8	$24.43	38.7	63.4	-------	-------	-------	$17.83	35.7	50.3	-------	-------	-------	-------	-------	-------
1941: January	20.66	37.3	55.4	25.27	38.3	66.2	-------	-------	-------	19.58	37.0	53.0	-------	-------	-------	-------	-------	-------
1947: April	39.44	38.3	102.9	49.14	40.7	120.4	$37.07	37.8	99.4	37.96	38.0	99.8	$31.17	35.0	89.0	$41.22	39.1	105
May	39.45	38.1	103.5	49.65	40.7	122.0	37.32	37.7	100.6	37.78	37.8	100.0	31.38	34.6	90.8	40.35	38.5	104
June	40.12	38.1	105.3	50.44	40.5	124.1	38.62	38.1	102.5	38.30	37.7	102.0	31.42	35.0	90.7	42.34	39.6	106
July	40.30	38.2	105.5	51.11	40.4	126.1	39.06	38.4	103.1	38.49	37.8	101.8	32.42	35.6	91.4	40.62	38.4	105
August	40.25	38.1	105.7	51.19	40.0	127.7	39.86	39.1	103.4	38.32	37.7	101.8	32.33	35.7	91.2	42.09	39.4	106
September	41.89	39.1	107.2	52.66	41.0	128.3	40.14	39.2	103.2	40.12	38.8	103.5	33.45	36.3	92.7	43.07	39.5	108
October	42.18	39.0	108.2	52.52	40.7	128.7	39.19	38.3	103.7	40.41	38.7	104.6	34.43	36.4	94.5	46.15	40.9	111
November	41.93	38.3	109.5	52.82	40.6	129.7	38.92	37.2	106.0	39.98	37.8	105.9	33.88	36.3	93.4	47.61	42.2	112
December	42.67	39.1	109.2	53.65	41.3	130.0	41.36	39.3	106.3	40.87	38.7	105.6	33.91	36.3	93.1	45.53	40.9	110
1948: January	42.63	39.0	109.5	53.06	40.8	129.9	41.36	38.9	107.5	41.09	38.8	105.9	33.75	35.7	94.7	42.33	38.4	110
February	42.99	39.0	110.2	53.38	40.5	131.7	41.23	38.4	108.0	41.35	38.8	106.5	33.67	36.0	94.1	45.61	40.6	112
March	41.87	37.8	110.6	51.91	39.4	131.5	40.55	37.5	108.7	40.21	37.5	107.1	33.62	35.6	94.8	45.83	40.6	112
April	40.34	36.2	111.6	51.59	39.1	131.8	39.70	36.6	110.7	38.09	35.3	108.0	33.29	35.6	93.6	45.35	40.1	113

See footnotes at end of table.

TABLE C-1: Hours and Gross Earnings in Manufacturing and Nonmanufacturing Industries [1]—Con.

MANUFACTURING—Continued

Food

Year and month	Total: Food			Slaughtering and meat packing			Butter			Condensed and evaporated milk			Ice cream			Flour		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
			Cents			Cents			Cents			Cents			Cents			Cents
1939: Average	$24.43	40.3	60.7	$27.85	40.6	68.6	$22.60	46.7	48.4	-------	-------	-------	$29.24	46.2	62.6	$25.80	42.3	60.5
1941: January	24.69	39.0	63.3	26.84	39.3	68.1	22.84	44.6	50.9	-------	-------	-------	29.41	44.2	65.3	25.27	41.0	60.8
April	46.20	42.1	109.7	50.22	41.8	120.4	43.47	46.8	93.2	$48.16	46.8	103.0	47.32	46.0	100.2	52.44	47.5	110.5
May	47.71	43.0	111.0	53.37	44.0	121.4	43.91	46.3	94.8	49.52	48.3	102.6	47.36	45.8	100.9	51.82	47.8	108.5
June	48.27	43.2	111.9	54.40	44.5	122.2	45.60	47.4	95.9	50.57	48.7	103.9	48.81	46.7	102.1	55.55	49.8	111.5
July	48.40	43.2	112.1	56.82	44.5	128.2	44.75	47.0	95.5	50.18	48.1	104.4	49.62	46.7	103.4	57.71	50.5	114.5
August	49.45	43.4	114.0	54.33	43.0	126.7	46.20	47.7	96.4	49.21	47.2	104.2	50.84	46.9	105.2	59.69	50.1	119.3
September	49.04	43.4	112.9	55.31	43.4	127.6	45.65	47.4	96.1	49.66	46.9	105.9	50.12	45.7	105.9	59.91	49.9	120.1
October	49.61	42.8	115.9	54.98	43.2	127.3	45.58	46.3	98.1	49.24	46.5	105.8	49.86	45.5	106.4	59.01	49.0	120.3
November	49.90	42.5	117.3	61.31	46.9	130.5	46.05	46.1	99.5	48.54	45.7	106.2	49.40	44.3	107.2	59.15	48.6	121.8
December	50.93	43.3	117.5	61.57	47.7	129.1	46.98	46.5	100.4	49.32	45.9	107.4	49.87	44.8	107.3	56.45	47.6	118.7
1948: January	49.44	42.0	117.7	5 712	44.8	127.5	5.92	45.9	99.5	50.20	45.5	110.3	50.50	45.3	107.9	54.43	46.4	117.5
February	49.18	41.6	118.1	51.88	40.7	127.7	47.28	46.3	101.1	51.68	45.9	112.5	51.12	45.0	109.3	54.56	45.9	118.9
March	49.36	41.3	118.7	56.03	43.3	130.3	45.45	45.8	99.8	52.28	46.4	112.6	51.44	45.4	109.5	50.99	43.7	116.7
April	50.67	42.6	119.9	65.55	46.7	140.7	46.27	45.6	101.7	53.54	46.6	114.5	50.86	45.3	108.7	53.53	45.5	118.0

Food—Continued

Year and month	Cereal preparations			Baking [2]			Sugar refining, cane			Sugar, beet			Confectionery			Beverages, non-alcoholic		
			Cents			Cents			Cents			Cents			Cents			Cents
1939: Average	-------	-------	-------	$25.70	41.7	62.1	$23.91	37.6	63.6	$24.68	42.9	58.5	$18.64	38.1	49.2	$24.21	43.6	55.6
1941: January	-------	-------	-------	26.46	41.1	64.4	22.73	35.0	65.0	24.03	36.5	63.0	19.19	37.6	51.1	25.28	42.0	60.2
April	$48.26	39.6	121.8	45.26	42.5	106.5	47.92	43.7	109.7	44.46	38.6	115.1	37.60	38.9	96.7	42.50	43.1	98.3
May	49.77	40.4	123.2	44.84	42.5	105.6	44.35	41.3	107.5	43.79	38.9	112.5	38.77	39.8	97.6	43.10	43.6	98.5
June	50.79	40.8	124.4	45.50	42.6	106.7	52.14	45.6	114.2	47.38	40.8	116.2	39.34	39.3	100.4	44.48	44.2	100.4
July	53.85	43.2	124.6	45.81	42.7	107.4	50.33	45.5	110.5	46.34	39.2	118.4	37.66	37.8	99.8	45.98	45.0	102.0
August	54.32	42.4	128.1	45.52	41.9	109.1	51.89	46.3	112.1	50.88	41.7	122.0	38.39	38.8	99.3	47.89	46.6	103.6
September	51.28	40.5	126.5	46.14	41.9	110.4	50.87	44.0	115.6	51.55	40.8	126.3	41.20	40.4	102.1	47.91	46.0	104.9
October	50.54	39.7	127.3	46.85	41.9	111.5	53.03	45.3	116.8	50.59	44.8	113.0	42.24	41.1	102.9	45.85	44.3	103.9
November	52.05	40.3	129.1	46.26	41.6	111.5	56.39	46.0	122.4	56.47	48.2	117.2	42.24	40.8	103.6	44.60	43.3	103.2
December	54.13	40.8	132.8	47.43	42.3	111.9	48.24	41.2	117.1	53.87	46.1	116.8	42.96	41.5	103.5	45.22	43.7	103.2
1948: January	54.10	40.5	133.5	47.03	41.6	113.1	45.66	38.0	120.1	50.45	39.0	129.3	40.82	39.6	103.4	45.05	43.0	105.5
February	55.58	40.6	136.9	49.30	43.6	113.2	44.66	37.9	111.7	55.30	42.4	130.5	40.94	39.3	104.5	44.99	42.9	104.8
March	52.46	38.7	135.6	47.38	41.9	113.1	49.30	41.0	120.2	50.11	38.7	129.6	40.96	39.1	105.0	44.93	43.0	104.4
April	54.50	39.8	137.0	48.00	42.1	113.8	51.03	42.5	119.7	50.19	38.9	130.2	41.22	38.8	106.4	45.46	43.7	104.1

Food—Continued

Tobacco manufactures

Year and month	Malt liquors			Canning and preserving			Total: Tobacco manufactures			Cigarettes			Cigars			Tobacco (chewing and smoking) and snuff		
			Cents			Cents			Cents			Cents			Cents			Cents
1939: Average	$35.01	38.3	91.6	$16.77	37.0	46.4	$16.84	35.4	47.6	$20.88	37.2	56.1	$14.59	34.7	41.9	$17.53	34.1	51.4
1941: January	34.57	36.4	95.2	16.67	33.0	51.0	17.89	35.7	50.1	22.38	37.3	60.0	15.13	35.0	43.2	18.60	34.9	53.7
April	59.30	42.7	138.7	38.50	38.0	101.8	34.84	36.7	94.8	38.78	36.8	105.4	31.69	36.6	86.0	33.86	37.4	90.7
May	61.55	43.8	140.3	39.39	38.3	103.4	34.46	36.3	94.8	38.33	36.1	106.1	32.03	37.4	85.3	29.72	31.6	94.0
June	64.57	44.4	145.1	39.37	37.8	104.5	36.30	38.2	95.0	41.67	39.4	105.7	32.08	37.4	85.4	34.49	36.9	93.7
July	67.52	45.1	149.3	39.96	39.9	100.3	37.74	39.6	95.3	44.67	42.2	106.0	31.25	37.4	84.7	38.21	39.9	95.8
August	68.98	45.3	152.3	45.88	42.6	108.3	37.26	39.2	95.1	43.74	41.2	106.1	32.00	37.3	85.3	37.13	40.1	92.8
September	69.54	45.2	153.9	43.69	42.8	102.5	37.33	39.2	95.2	43.36	40.7	106.6	32.42	37.7	85.7	38.39	41.2	93.3
October	66.10	43.5	151.7	44.75	40.9	110.0	37.90	39.7	95.4	43.92	41.3	106.3	33.21	38.3	86.3	37.78	40.6	93.1
November	64.03	42.1	152.3	37.94	35.9	106.2	37.67	39.4	95.6	43.15	40.6	106.3	33.69	38.6	86.8	36.10	38.5	93.9
December	63.54	42.1	151.1	41.14	37.7	109.3	39.16	39.9	98.3	45.45	40.6	111.9	34.24	39.3	86.8	37.16	39.1	95.0
1948: January	61.03	40.4	151.0	41.10	37.3	110.2	37.97	38.6	98.4	44.74	39.4	113.5	32.64	38.1	86.0	35.38	37.1	95.5
February	62.25	40.9	152.0	42.73	38.4	111.8	35.04	36.2	96.8	37.93	33.9	112.0	32.59	37.9	85.7	35.89	37.2	96.5
March	62.57	41.2	151.6	40.77	36.5	112.0	36.84	37.8	97.5	42.99	38.2	112.4	32.12	37.5	85.2	35.78	36.9	97.1
April	65.24	42.5	153.2	41.65	36.9	113.2	37.55	38.3	98.0	44.35	39.6	111.9	32.13	37.4	85.7	36.15	37.1	97.9

See footnotes at end of table.

TABLE C–1: Hours and Gross Earnings in Manufacturing and Nonmanufacturing Industries [1]—Co

MANUFACTURING—Continued

Paper and allied products

Year and month	Total: Paper and allied products			Paper and pulp			Envelopes			Paper bags			Paper boxes			Printing, publishing, and allied industries
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Total: Printing, publishing, and allied industries
			Cents			*Cents*			*Cents*			*Cents*			*Cents*	
1939: Average	$23.72	40.1	59.2	$24.92	40.3	62.0	-------	-------	-------	-------	-------	-------	$21.78	40.2	54.7	$32.42
1941: January	25.16	40.0	62.9	27.02	40.8	66.2	-------	-------	-------	-------	-------	-------	22.26	38.8	57.6	33.49
1947: April	48.20	43.0	112.1	52.07	44.4	117.3	$44.94	42.8	106.3	$39.69	39.5	100.7	43.98	41.5	106.0	58.69
May	48.79	43.1	113.3	52.84	44.7	118.2	45.25	43.0	106.5	40.42	39.1	103.6	44.30	41.2	107.7	59.55
June	49.95	42.9	116.5	54.83	44.5	123.1	45.96	43.0	107.3	41.69	39.6	105.4	44.87	41.3	108.8	59.76
July	51.06	42.9	119.0	56.36	44.5	126.6	44.72	42.1	107.4	42.30	38.8	109.4	45.44	41.4	109.9	59.37
August	50.72	42.4	119.6	56.30	44.1	127.6	44.96	41.0	110.7	41.89	38.4	109.3	44.92	40.8	110.4	59.48
September	51.99	42.9	121.0	57.14	44.5	128.3	47.02	42.2	112.5	42.05	38.2	110.2	46.53	41.6	112.2	61.61
October	52.22	43.0	121.5	57.10	44.4	128.7	46.97	42.1	112.8	43.67	39.3	111.3	47.37	42.1	112.7	61.62
November	52.80	43.2	122.2	57.40	44.4	129.2	46.52	41.9	112.0	43.17	39.0	110.6	48.66	42.7	114.3	62.30
December	53.69	43.8	122.6	58.21	44.9	129.5	47.35	42.2	112.2	45.29	40.7	111.3	49.44	43.3	114.4	63.37
1948: January	53.20	43.1	123.5	57.75	44.4	130.1	46.50	41.4	113.9	45.23	40.8	111.2	48.35	42.0	115.5	62.41
February	53.61	43.1	124.5	58.41	44.5	131.0	46.68	41.3	114.6	44.34	39.5	112.0	48.75	41.9	116.7	62.72
March	53.79	43.1	124.9	58.50	44.5	131.3	46.30	41.1	114.4	45.69	40.7	112.1	49.02	41.8	117.6	63.97
April	53.34	42.7	125.0	58.02	44.1	131.3	46.26	40.8	114.9	45.14	40.5	111.3	48.32	41.0	118.0	64.50

Printing, publishing, and allied industries—Continued; Chemicals and allied products

Year and month	Newspapers and periodicals			Printing; book and job			Lithographing			Total: Chemicals and allied products			Paints, varnishes, and colors			Drugs, medicines, and insecticides
			Cents			*Cents*			*Cents*			*Cents*			*Cents*	
1939: Average	$37.58	36.1	100.4	$30.30	38.3	80.4	-------	-------	-------	$25.59	39.5	64.9	$28.48	40.5	70.4	$24.16
1941: January	38.15	35.4	105.2	31.64	39.6	81.0	-------	-------	-------	27.53	39.9	69.0	29.86	40.3	74.1	24.68
1947: April	65.29	38.9	165.1	56.13	40.7	138.6	$58.80	41.8	140.8	48.93	41.0	119.2	51.81	42.5	122.2	42.80
May	67.10	38.9	169.9	56.41	40.6	139.7	57.73	41.2	140.3	49.80	41.1	121.0	52.36	42.5	123.6	43.19
June	67.16	38.4	171.9	56.81	40.6	140.6	58.31	41.3	141.1	50.59	41.1	123.2	52.81	42.5	124.4	43.49
July	66.53	38.2	171.3	56.77	40.5	140.8	57.55	40.5	142.1	51.00	40.9	124.7	53.37	42.3	126.3	43.50
August	67.74	38.5	173.6	55.95	40.0	140.6	57.56	40.1	143.6	51.27	40.9	125.2	53.76	42.1	127.9	45.68
September	69.40	39.0	175.3	58.32	40.8	143.6	60.51	51.2	146.7	51.81	41.0	126.3	53.55	41.8	128.4	46.43
October	69.18	38.7	175.8	58.63	40.7	145.1	60.16	41.1	146.2	52.67	41.4	127.3	53.93	41.9	129.0	47.90
November	69.78	38.6	177.6	59.35	40.7	146.9	62.19	42.4	146.7	53.15	41.3	128.7	55.06	41.9	131.6	47.35
December	71.45	39.1	179.1	60.22	41.1	147.9	62.91	42.3	148.6	53.73	41.5	129.3	55.11	42.0	131.4	47.90
1948: January	68.90	37.8	179.7	60.23	40.7	149.3	61.03	40.4	151.1	54.31	41.4	131.1	55.34	42.0	132.1	48.31
February	70.36	38.3	181.2	60.13	39.8	152.8	60.04	39.8	150.9	54.12	41.1	131.5	55.73	41.8	133.4	48.42
March	71.32	38.4	184.3	60.96	40.3	152.8	62.92	40.3	156.0	54.14	41.2	131.4	55.71	41.7	133.8	48.44
April	72.92	38.5	186.7	61.26	39.9	155.1	61.69	39.5	156.2	54.34	41.0	132.5	55.54	41.5	134.4	48.16

Chemicals and allied products—Continued

Year and month	Soap			Rayon and allied products			Chemicals, not elsewhere classified			Explosives and safety fuses			Ammunition, small-arms			Cottonseed oil
			Cents			*Cents*			*Cents*			*Cents*			*Cents*	
1939: Average	$28.11	39.8	70.7	$24.52	37.9	64.6	$31.30	40.0	78.4	$29.99	38.8	77.3	$22.68	39.0	61.2	$13.70
1941: January	29.58	40.0	74.0	27.26	39.2	69.6	33.10	40.3	82.2	31.56	37.8	83.5	24.05	38.6	62.3	15.55
1947: April	54.78	42.8	128.1	48.59	39.4	123.3	55.45	40.8	135.9	49.57	37.4	132.5	48.24	41.4	116.4	33.88
May	55.19	42.2	130.9	48.37	39.5	122.4	56.35	41.0	137.5	53.31	40.2	132.6	49.12	41.2	119.2	35.29
June	57.98	43.3	133.8	48.63	39.6	122.9	56.80	40.9	139.0	54.77	40.4	135.7	49.62	41.8	118.6	35.83
July	56.30	42.0	134.0	48.69	39.6	123.0	57.73	41.1	140.4	56.47	41.2	137.1	50.42	41.6	121.3	35.29
August	59.04	43.0	137.4	49.04	40.0	122.6	57.44	40.7	141.0	57.08	41.9	136.1	44.96	41.0	109.8	35.76
September	62.05	44.0	141.0	49.74	39.6	125.7	57.98	40.5	143.2	57.39	41.6	138.1	52.69	42.1	125.0	36.30
October	61.58	43.5	141.4	48.71	39.0	124.9	58.46	40.8	143.2	56.65	40.5	140.0	53.13	42.9	123.9	38.84
November	62.66	44.1	142.0	49.07	39.2	125.2	59.21	40.9	144.8	58.20	40.7	143.0	53.30	43.1	123.8	38.47
December	65.01	44.7	145.6	49.73	39.2	126.8	60.07	41.2	145.7	57.36	40.0	143.3	53.85	43.3	124.3	38.68
1948: January	64.69	44.1	146.6	50.36	39.2	128.4	60.80	41.2	147.7	58.85	40.8	144.1	*48.09	*40.5	*118.8	*38.86
February	64.54	43.8	147.5	50.33	39.3	128.0	60.82	41.1	147.9	59.20	41.2	143.8	48.19	40.6	118.7	36.59
March	62.83	42.8	146.7	50.68	39.5	128.4	60.84	41.0	148.3	58.24	40.5	143.7	49.04	40.7	120.4	37.95
April	64.29	42.1	152.8	51.29	39.8	128.7	60.97	41.1	148.4	56.47	39.6	142.7	48.87	40.4	120.8	37.50

See footnotes at end of table.

TABLE C-1: Hours and Gross Earnings in Manufacturing and Nonmanufacturing Industries [1]—Con.

MANUFACTURING—Continued

Year and month	Chemicals and allied products—Con.			Products of petroleum and coal									Rubber products		
	Fertilizers			Total: Products of petroleum and coal			Petroleum refining			Coke and by-products			Roofing materials			Total: Rubber products		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
			Cents			*Cents*			*Cents*			*Cents*			*Cents*			*Cents*
1939: Average	$14.71	35.8	41.2	$32.62	36.5	89.4	$34.97	36.1	97.4	-------	-------	-------	-------	-------	-------	$27.84	36.9	75.4
1941: January	14.89	34.8	42.9	32.46	36.6	88.7	34.46	35.7	97.0	-------	-------	-------	-------	-------	-------	30.38	39.0	77.9
1947: April	35.30	42.3	83.5	57.41	40.5	141.8	60.24	40.1	150.1	$49.87	40.3	123.2	$54.21	44.7	121.1	55.23	39.5	139.7
May	36.76	42.9	85.7	57.92	40.0	144.8	60.01	39.5	152.0	52.64	39.7	132.3	55.40	45.1	122.9	55.30	39.0	141.6
June	36.41	41.8	87.1	59.64	40.7	146.4	62.17	40.6	153.2	53.83	39.8	134.5	54.87	43.9	125.1	55.49	39.1	141.9
July	37.04	41.8	88.6	60.57	40.5	149.5	64.12	40.7	157.0	51.34	37.8	136.4	56.09	44.5	126.0	55.74	38.6	144.5
August	37.17	40.9	90.8	60.62	40.6	149.4	63.12	40.3	156.7	54.15	39.8	136.3	57.17	44.6	128.2	55.92	38.7	144.5
September	38.85	41.8	93.0	61.84	41.0	150.9	64.75	40.7	159.1	53.08	38.6	138.1	57.56	44.7	128.7	57.76	39.9	144.7
October	36.85	40.5	90.9	60.94	40.5	150.5	63.51	39.9	159.3	53.83	39.9	135.0	58.88	45.2	130.2	57.62	40.1	143.8
November	35.53	39.2	90.7	62.54	41.2	151.8	65.86	41.0	160.7	54.06	39.8	135.9	58.74	45.4	130.6	57.99	39.9	145.4
December	36.56	40.7	89.7	63.21	40.8	155.1	66.32	40.3	164.7	54.37	39.7	137.1	60.60	45.5	133.1	59.47	40.9	145.4
1948: January	37.23	41.5	89.7	64.47	40.7	158.6	67.54	39.8	169.9	58.02	41.9	138.4	58.35	44.4	131.4	57.33	39.7	144.4
February	34.96	39.7	88.1	64.58	40.8	158.1	67.64	40.0	168.9	57.77	42.0	137.3	58.67	44.1	133.2	54.70	38.5	142.1
March	36.25	41.6	87.1	64.87	40.9	158.7	67.77	40.1	169.2	58.07	41.9	138.5	59.51	44.3	134.2	53.24	37.8	140.8
April	36.49	41.5	88.0	64.38	40.3	159.6	68.02	39.9	170.3	54.84	39.8	137.6	58.84	44.0	133.8	53.44	37.8	141.3

Year and month	Rubber products—Continued									Miscellaneous industries								
	Rubber tires and inner tubes			Rubber boots and shoes			Rubber goods, other			Total: Miscellaneous industries			Instruments (professional and scientific), and fire-control equipment			Pianos, organs, and parts		
			Cents			*Cents*			*Cents*			*Cents*			*Cents*			*Cents*
1939: Average	$33.36	35.0	95.7	$22.80	37.5	60.7	$23.34	38.9	60.5	$24.48	39.2	62.4	-------	-------	-------	-------	-------	-------
1941: January	36.67	37.7	97.5	26.76	41.9	63.9	24.97	39.4	63.9	25.35	39.3	64.5	$35.33	45.7	77.3	-------	-------	-------
1947: April	61.64	38.2	160.8	47.03	40.8	115.2	48.53	41.0	118.4	46.35	40.6	114.2	52.10	39.5	130.1	$51.53	41.4	125.1
May	61.12	37.6	162.2	48.27	40.7	118.5	48.81	40.6	120.1	46.50	40.3	115.3	51.81	38.9	131.3	52.92	41.4	128.5
June	61.35	37.7	161.5	49.62	41.4	119.8	48.95	40.5	120.9	47.00	40.3	116.7	54.15	39.5	135.1	52.71	41.3	127.7
July	62.06	37.9	164.0	48.46	40.5	118.7	48.22	39.1	123.2	46.37	39.4	117.8	53.55	40.1	135.0	51.57	40.8	126.9
August	62.15	37.8	164.0	47.23	39.9	118.3	49.17	39.7	123.7	46.32	39.3	117.7	54.27	39.9	135.3	50.88	40.7	125.9
September	64.75	38.9	166.1	49.92	41.8	119.4	50.40	40.9	123.4	47.91	40.2	119.1	55.00	39.8	136.1	53.81	41.9	129.5
October	63.78	38.7	164.7	51.28	42.4	121.1	51.03	41.4	123.2	48.74	40.6	120.0	55.67	39.9	137.5	52.64	40.8	130.1
November	64.86	38.9	166.1	49.26	40.6	121.3	51.27	41.0	125.2	49.14	40.7	120.7	56.06	40.0	136.9	54.24	41.6	131.8
December	65.74	39.5	165.8	54.72	44.5	123.1	52.93	41.8	126.1	50.21	41.2	121.9	57.99	40.8	139.1	56.25	42.9	132.6
1948: January	62.72	38.2	164.6	51.08	42.1	121.4	51.79	41.1	126.0	49.60	40.4	122.7	59.59	41.2	141.9	52.52	40.4	131.1
February	58.22	36.0	161.3	50.65	41.7	121.4	51.33	40.8	125.8	50.11	40.8	123.0	57.20	40.0	138.8	51.88	40.0	130.5
March	55.54	34.8	159.9	51.42	42.2	121.9	50.60	40.4	125.1	49.84	40.6	122.9	57.54	40.1	140.7	52.15	40.6	128.8
April	56.54	35.3	160.3	50.59	41.7	121.4	50.05	40.0	125.8	49.63	40.4	122.9	58.16	40.5	141.3	52.62	41.0	128.3

NONMANUFACTURING

Mining

Year and month	Coal						Metal											
	Anthracite			Bituminous coal [3]			Total: Metal			Iron			Copper			Lead and zinc		
			Cents			*Cents*			*Cents*			*Cents*			*Cents*			*Cents*
1939: Average	$25.67	27.7	92.3	$23.88	27.1	88.6	$28.93	40.9	70.8	$26.36	35.7	73.8	$28.08	41.9	67.9	$26.39	38.7	68.3
1941: January	25.13	27.0	92.5	26.00	29.7	88.5	30.63	41.0	74.7	29.26	39.0	75.0	30.93	41.8	74.9	28.61	38.2	74.9
1947: April	49.89	32.3	154.5	54.14	36.4	148.3	51.68	41.8	123.7	48.00	39.9	120.2	54.53	44.1	123.7	53.91	41.8	129.0
May	59.15	37.2	159.3	65.51	44.3	147.0	53.96	42.2	127.8	52.62	40.9	128.6	56.47	44.5	126.8	54.22	41.8	129.6
June	62.39	39.2	159.6	67.09	43.7	148.9	56.37	42.6	132.3	55.68	40.9	136.2	59.09	45.3	130.5	55.45	42.3	131.2
July	58.10	37.0	157.5	54.87	31.8	174.0	54.04	41.2	131.1	52.86	39.2	134.8	57.79	44.7	129.4	52.81	40.5	130.4
August	68.51	38.5	178.0	70.23	39.1	178.7	56.09	41.4	135.4	54.09	40.0	135.2	60.01	43.8	136.9	54.75	39.8	137.6
September	67.37	38.2	176.5	71.19	39.1	181.9	57.01	41.6	137.0	54.12	39.6	136.8	61.57	44.2	139.3	56.67	41.0	138.3
October	71.40	40.0	178.4	71.91	39.9	179.8	57.39	42.3	135.6	55.11	40.7	135.5	60.78	44.8	135.7	57.48	41.5	138.6
November	63.43	36.2	175.4	71.77	38.5	185.1	57.55	41.7	138.0	54.83	39.9	137.6	60.49	44.0	137.5	58.58	41.4	141.6
December	67.42	38.4	175.6	75.22	41.2	182.6	58.11	42.7	136.0	54.26	40.3	134.6	62.39	45.5	137.0	60.83	43.3	140.6
1948: January	68.79	39.0	176.4	75.78	40.9	184.7	58.23	42.5	137.1	54.99	40.5	135.6	62.21	45.2	137.7	59.88	42.0	142.5
February	65.78	36.2	181.7	70.54	38.7	182.6	58.79	42.9	137.0	56.40	41.4	136.1	62.84	45.8	137.3	59.16	41.9	141.2
March	71.59	40.3	177.6	74.61	40.5	184.1	57.78	42.3	136.5	55.81	41.2	135.9	61.25	44.7	137.1	58.44	41.6	140.6
April	55.05	32.1	170.8	49.33	26.9	182.2	57.56	42.0	137.1	54.89	40.5	136.2	61.04	44.6	136.9	58.94	41.5	142.4

See footnotes at end of table.

TABLE C–1: Hours and Gross Earnings in Manufacturing and Nonmanufacturing Industries [1]—Co

NONMANUFACTURING—Continued

Year and month	Mining—Continued						Public utilities											
	Quarrying and nonmetallic			Crude petroleum and natural gas production			Street railways and busses [4]			Telephone [5]			Telegraph [6]			Electric light and power		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	
			Cents			*Cents*			*Cents*			*Cents*			*Cents*			
1939: Average	$21.61	39.2	55.0	$34.09	38.3	87.3	$33.13	45.9	71.4	$31.94	39.1	82.2	-------	-------	-------	$34.38	39.6	
1941: January	22.06	38.2	57.6	33.99	37.7	88.5	33.62	45.3	73.1	32.52	39.7	82.4	-------	-------	-------	35.49	39.4	
1947: April	48.67	44.5	108.0	58.74	40.8	144.4	56.94	47.8	119.0	32.26	26.9	117.4	$59.27	47.3	125.2	55.90	42.2	
May	49.86	45.6	109.2	58.71	40.5	144.8	56.99	47.6	119.5	38.13	31.5	118.9	57.17	46.0	124.2	55.90	41.6	
June	50.92	45.6	112.1	61.46	41.9	147.5	57.71	47.4	121.2	45.58	37.5	121.8	55.36	44.8	123.6	57.84	42.2	
July	51.26	45.2	112.9	60.01	40.6	148.1	57.65	46.3	123.1	46.51	38.4	121.1	54.88	44.8	122.6	56.99	42.1	
August	52.99	46.1	114.6	59.54	40.1	148.6	58.00	46.6	124.1	46.92	38.7	121.5	55.01	44.8	122.8	57.97	42.4	
September	53.45	46.1	115.6	61.37	40.3	151.0	58.57	46.1	126.5	48.02	39.1	123.0	54.95	44.5	123.4	58.29	42.0	
October	54.44	46.4	116.9	60.51	40.0	149.4	58.69	45.7	126.5	48.77	39.3	124.1	54.92	44.8	122.7	58.44	42.1	
November	53.05	44.6	117.8	62.94	40.9	155.4	58.27	45.4	127.6	49.44	39.5	125.4	55.10	44.0	125.3	60.33	42.4	
December	52.39	44.4	117.6	60.90	39.5	154.3	60.11	46.8	128.8	47.83	39.0	122.9	55.14	43.9	125.7	59.01	42.2	
1948: January	50.12	42.7	117.5	64.53	39.9	162.7	60.73	46.3	129.9	48.20	38.9	124.1	55.81	44.4	125.7	59.87	42.4	
February	49.92	42.1	118.6	65.77	40.4	163.8	62.15	47.7	129.5	47.82	38.7	123.8	56.26	44.5	126.5	59.60	42.2	
March	52.81	43.6	121.2	63.44	39.7	160.5	61.36	47.3	129.5	47.31	38.7	122.3	56.19	44.4	126.7	58.27	41.6	
April	54.60	44.5	122.5	64.49	40.1	161.4	60.10	46.6	129.3	48.39	38.8	124.2	59.45	44.1	134.9	59.10	41.8	

Year and month	Trade																	
	Wholesale			Retail														
				Total: Retail			Food			General merchandise			Apparel			Furniture and ho furnishings		
			Cents			*Cents*			*Cents*			*Cents*			*Cents*			
1939: Average	$29.85	41.7	71.5	$21.17	43.0	53.6	$23.37	43.9	52.5	$17.80	38.8	45.4	$21.23	38.8	54.3	$28.62	44.5	
1941: January	30.59	40.6	75.6	21.53	42.9	54.9	23.78	43.6	53.7	18.22	38.8	46.6	21.89	39.0	56.0	27.96	43.9	
1947: April	51.13	41.2	122.9	35.93	40.0	97.4	42.39	40.0	102.9	30.60	36.1	82.3	37.07	36.8	99.9	47.82	42.4	
May	51.57	41.2	124.1	36.50	40.0	98.5	43.29	40.0	104.9	31.24	36.0	84.2	36.98	36.9	99.7	49.01	42.5	
June	52.88	41.6	126.2	37.82	40.8	99.6	44.57	41.0	105.7	32.41	37.2	84.8	37.86	37.2	100.9	50.20	43.2	
July	52.22	41.1	125.7	37.99	41.1	100.3	45.07	41.6	106.2	32.59	37.6	85.5	37.82	37.3	99.8	49.51	43.0	
August	52.05	41.1	125.8	38.14	41.0	100.3	45.37	42.1	104.3	32.50	37.2	85.9	36.74	37.1	99.4	49.41	42.6	
September	53.65	41.2	128.1	37 06	40.0	101.2	44.15	40.1	105.1	31.85	36.3	85.4	37.02	36.9	101.1	50.23	42.6	
October	53.68	41.3	128 9	36.74	40.0	101.3	44.08	40.2	105.8	31.59	36.1	86.0	37.20	36.8	102.3	51.43	42.4	
November	54.70	41.4	131.4	37.14	39.5	102.5	44.92	39.6	108.6	31.15	35.5	85.6	37.40	36.5	102.7	52.13	42.5	
December	54.97	41.6	130.0	37.51	39.7	101.6	44.74	39.9	107.9	31.87	36.0	85.3	38.18	37.2	102.4	53.79	43.2	
1948: January	54.36	41.0	130.9	37.62	39.8	104.4	45.46	39.9	110.8	32.09	35.9	88.9	37.68	36.9	100.7	50.62	42.3	
February	55.87	41.1	134.3	38.33	40.0	105.0	46.33	39.7	111.9	32.09	35.7	88.3	37.94	37.3	100.2	53.05	43.9	
March	55.17	40.9	133.4	38.02	39.5	104.5	46.14	39.5	112.3	32.28	35.3	87.8	37.50	36.3	101.4	51.30	43.7	
April	55.76	41.0	134.6	38.40	39.5	105.5	46.28	39.2	112.6	32.51	35.3	89.5	38.23	36.6	102.2	51.97	43.5	

See footnotes at end of table.

BLE C-1: Hours and Gross Earnings in Manufacturing and Nonmanufacturing Industries [1]—Con.

NONMANUFACTURING—Continued

Year and month	Trade—Continued						Finance [2]		Service								
	Retail—Continued						Brokerage	Insurance	Hotels [3] (year-round)			Power laundries			Cleaning and dyeing		
	Automotive			Lumber and building materials													
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
			Cents			*Cents*					*Cents*			*Cents*			*Cents*
Average	$27.07	47.6	57.1	$26.22	42.7	61.9	$36.63	$36.32	$15.25	46.6	32.4	$17.69	42.7	41.7	$19.96	41.8	49.0
January	28.26	46.8	60.6	26.16	41.7	63.4	38.25	37.52	15.65	45.9	33.8	18.37	42.9	42.9	19.92	41.9	48.8
April	50.45	45.5	112.5	45.70	42.8	107.8	61.36	52.65	29.41	44.9	64.2	32.37	42.8	75.7	36.77	41.9	88.8
May	50.54	45.6	112.4	46.32	42.9	109.0	61.06	52.35	29.23	45.0	64.3	32.45	42.7	75.6	37.70	42.6	89.4
June	52.25	46.0	114.1	47.43	43.3	110.4	63.72	53.75	29.85	45.2	65.0	33.21	42.8	76.7	38.10	42.9	89.8
July	50.59	45.4	114.6	46.46	42.5	110.5	62.11	52.60	29.36	44.9	65.2	32.95	42.6	76.9	37.34	42.1	89.9
August	51.50	45.5	115.2	48.49	43.0	112.2	58.42	52.55	29.50	45.0	66.0	32.79	42.2	77.1	35.86	40.8	89.2
September	51.55	45.3	115.9	48.24	42.3	113.5	59.32	51.47	29.86	44.1	67.2	33.44	42.4	78.6	37.67	41.9	91.1
October	52.37	45.7	116.5	48.70	42.9	113.6	61.38	51.96	30.45	44.0	68.4	32.97	42.3	78.7	37.70	41.5	91.9
November	52.62	45.3	117.4	47.65	42.1	113.9	64.51	53.98	30.54	44.4	68.7	32.86	41.7	78.6	37.23	40.9	92.5
December	52.71	45.5	116.8	49.03	42.7	114.3	62.85	53.92	30.89	44.1	69.3	33.88	42.6	79.7	37.70	41.5	92.1
January	51.66	44.4	117.9	48.19	41.8	115.4	62.35	55.09	30.55	43.9	69.5	33.99	42.3	80.7	37.64	41.4	92.4
February	53.03	45.0	118.6	49.56	42.1	117.4	63.37	56.63	31.19	44.6	69.5	33.54	41.9	80.2	36.55	40.5	92.3
March	52.98	44.6	120.2	49.24	42.5	117.0	62.60	55.51	30.96	44.0	69.5	33.74	42.0	80.5	37.96	41.5	93.0
April	54.09	44.7	122.4	49.64	42.6	117.5	66.36	54.94	31.59	44.2	69.9	34.29	42.3	81.3	39.18	42.1	93.8

[1] These figures are based on reports from cooperating establishments covering both full- and part-time employees who worked or received pay during any part of the pay period ending nearest the 15th of the month. As not all reporting firms supply man-hour data, the average weekly hours and average hourly earnings for individual industries are based on a slightly smaller sample than are average weekly earnings.

For manufacturing, mining, power laundries, and cleaning and dyeing industries, the data relate to production and related workers only. For the remaining industries, unless otherwise noted, the data relate to all nonsupervisory employees and working supervisors. The size of the reporting sample, methods of computation, and additional tables on "real" and "net spendable" weekly earnings are contained in the Bureau's monthly mimeographed release, "Hours and Earnings—Industry Report," which is available upon request. Data for 1939 and January 1941, for some industries, are not strictly comparable with the periods currently presented. The entire series, by month, is available upon request to the Bureau of Labor Statistics. Data for the two current months are subject to revision without notation. Revised data for earlier months are identified by an asterisk.

New series beginning with month and year shown below; not comparable with data shown for earlier periods:

Knitted cloth.—September 1947; comparable August data are 101.2 cents.

Jute goods, except felts.—September 1947; comparable August data are 89.1 cents.

Underwear and neckwear, men's.—August 1947; comparable July data are $32.42, 35.1 hours, and 92.3 cents.

Textile bags.—June 1947; comparable May data are $33.53.

Baking.—May 1947; comparable April data are $43.62, 41.9 hours, and 103.9 cents.

[2] April 1948 data reflect work stoppages.

[3] Data include private and municipal street-railway companies and affiliated, subsidiary, or successor trolley-bus and motor-bus companies.

[4] Prior to April 1945 the averages of hours and earnings related to all employees except executives; beginning with April 1945 these averages reflect mainly the hours and earnings of employees subject to the Fair Labor Standards Act. At the same time the reporting sample was expanded to include a greater number of employees of "long lines." The April 1945 data are $40.72, 42.9 hours, and 95.2 cents on the old basis, and $37.50, 40.6 hours, and 92.6 cents on the new basis. Data for April and May 1947 reflect work stoppages.

[5] Data relate to all land-line employees except those compensated on a commission basis. Excludes general and divisional headquarters personnel, trainees in school, and messengers.

[6] Data on average weekly hours and average hourly earnings are not available.

[7] Money payments only; additional value of board, room, uniforms, and tips, not included.

*Revised.

TABLE C–2: Estimated Average Hourly Earnings, Gross and Exclusive of Overtime, of Production Workers in Manufacturing Industries [1]

[In cents]

Year and month	All manufacturing		Durable goods		Nondurable goods	
	Gross	Excluding overtime	Gross	Excluding overtime	Gross	Excluding overtime
January 1941	68.3	66.4	74.9	72.2	61.0	60.1
January 1945	104.6	97.0	114.4	105.3	89.1	84.0
July 1945	103.3	96.9	112.7	105.2	90.2	85.4
June 1946	108.4	105.3	116.5	113.4	100.3	97.2
1941: Average	72.9	70.2	80.8	77.0	64.0	62.5
1942: Average	85.3	80.5	94.7	88.1	72.3	69.8
1943: Average	96.1	89.4	105.9	97.6	80.3	76.3
1044: Average	101.9	94.7	111.7	102.9	86.1	81.4
1945: Average	102.3	[3] 96.3	111.1	[3] 104.2	90.4	[3] 85.8
1946: Average	108.4	104.9	115.6	112.2	101.2	97.8
1947: Average	122.1	118.2	129.2	125.0	114.5	110.9
1947: April	118.6	115.1	124.3	120.5	112.2	109.0
May	120.7	117.0	127.8	123.8	113.0	109.6
June	122.6	118.7	130.3	126.1	114.0	110.5
July	123.0	119.5	130.5	127.0	115.0	111.6
August	123.6	120.1	131.2	127.5	115.8	112.4
September	124.9	120.9	133.1	128.9	116.5	112.7
October	125.8	121.6	133.7	129.2	117.5	113.7
November	126.8	122.7	134.6	130.2	118.5	114.7
December	127.8	122.8	135.4	129.9	119.6	115.2
1948: January	128.5	124.3	135.5	130.8	121.0	117.3
February	128.7	124.7	135.2	130.9	121.7	118.1
March [4]	128.9	124.7	135.2	130.6	121.9	118.2
April [4]	129.1	125.3	135.6	131.5	121.9	118.3

[1] Overtime is defined as work in excess of 40 hours a week and paid for at time and one-half. The method of estimating average hourly earnings exclusive of overtime makes no allowance for special rates of pay for work done on holidays. Data for the months of January, July, September, and November therefore, may not be precisely comparable with data for the other months in which important holidays are seldom included in the reporting pay period. This characteristic of the data does not appear to invalidate the comparability of the figure for January 1941 with those for the following months.

[2] Eleven-month average only; August 1945 excluded because of VJ-day holiday period.

[3] Preliminary.

EDITOR'S NOTE:
Publication of the January 1941 base series has been discontinued. Data are available upon request to the Bureau of Labor Statistics.

TABLE C–3: Average Earnings and Hours on Private Construction Projects, by Type of Firm [1]

Year and month	All types, private construction projects			Building construction														
				Total building			General contractors			Special building trades								
										All trades [2]			Plumbing and heating			Painting and decorating		
	Average wkly. earnings [3]	Average wkly. hours	Average hourly earnings	Average wkly. earnings [3]	Average wkly. hours	Average hourly earnings	Average wkly. earnings [3]	Average wkly. hours	Average hourly earnings	Average wkly. earnings [3]	Average wkly. hours	Average hourly earnings	Average wkly. earnings [3]	Average wkly. hours	Average hourly earnings	Average wkly. earnings [3]	Average wkly. hours	Average hourly earnings
1940: Average	(4)	(4)	(4)	$31.70	33.1	$0.958	[5] $30.56	[5] 33.3	[5] $0.918	$33.11	32.7	$1.012	$32.87	34.6	$0.949	$33.05	32.5	$1.016
1941: January	(4)	(4)	(4)	32.18	32.6	.986	[5] 30.10	[5] 32.7	[5] .946	33.42	32.6	1.025	34.16	35.8	.955	31.49	29.7	1.062
1947: April	$60.14	37.5	$1.605	60.57	37.1	1.632	56.38	36.4	1.550	65.43	38.0	1.723	67.37	38.7	1.739	60.87	36.6	1.662
May	61.87	38.0	1.627	62.26	37.6	1.655	57.95	36.8	1.575	67.15	38.5	1.742	68.24	38.7	1.761	63.77	37.3	1.712
June	62.25	38.2	1.631	62.71	37.8	1.661	58.55	36.9	1.585	67.69	38.7	1.749	67.73	38.9	1.739	63.52	37.4	1.697
July	63.26	38.4	1.648	63.60	38.0	1.676	60.08	37.6	1.596	67.99	38.4	1.772	68.63	38.7	1.774	63.52	36.9	1.722
August	64.36	38.6	1.668	64.71	38.2	1.694	61.33	38.0	1.614	69.01	38.5	1.794	69.60	38.9	1.791	66.32	37.4	1.774
September	65.09	38.3	1.697	65.36	37.9	1.723	61.16	37.2	1.646	70.61	38.9	1.816	71.19	39.1	1.819	66.13	37.4	1.767
October	66.03	38.5	1.716	66.36	38.1	1.743	62.25	37.4	1.665	71.32	38.9	1.833	71.98	39.2	1.836	67.29	37.6	1.792
November	64.02	36.9	1.736	64.55	36.6	1.765	60.55	35.8	1.690	69.36	37.5	1.851	71.90	38.4	1.872	63.56	35.0	1.818
December	66.47	38.0	1.748	67.31	37.9	1.774	62.86	37.1	1.695	72.64	38.9	1.865	76.61	40.6	1.887	65.33	36.0	1.812
1948: January	65.73	37.3	1.762	66.28	37.2	1.781	62.05	36.4	1.707	71.43	38.2	1.868	75.79	40.7	1.862	65.79	35.7	1.840
February	66.17	37.0	1.788	66.31	36.7	1.806	62.70	36.3	1.727	70.99	37.3	1.899	74.17	39.1	1.895	65.03	34.7	1.872
March [6]	66.73	37.4	1.786	66.89	37.1	1.805	63.28	36.7	1.724	71.47	37.5	1.905	74.01	39.0	1.897	66.80	35.7	1.870
April [7]	67.52	37.6	1.797	67.58	37.1	1.822	63.85	36.5	1.748	72.34	37.8	1.914	75.15	38.9	1.933	68.33	36.3	1.882

See footnotes at end of table.

TABLE C-3: Average Earnings and Hours on Private Construction Projects, by Type of Firm [1]—Con.

Year and month	Building construction—Continued																	
	Special building trades—Continued																	
	Electrical work			Masonry			Plastering and lathing			Carpentry			Roofing and sheet metal			Excavation and foundation		
	Avg. wkly. earnings [3]	Avg. wkly. hours	Avg. hourly earnings	Avg. wkly. earnings [3]	Avg. wkly. hours	Avg. hourly earnings	Avg. wkly. earnings [3]	Avg. wkly. hours	Avg. hourly earnings	Avg. wkly. earnings [3]	Avg. wkly. hours	Avg. hourly earnings	Avg. wkly. earnings [3]	Avg. wkly. hours	Avg. hourly earnings	Avg. wkly. earnings [3]	Avg. wkly. hours	Avg. hourly earnings
1940: Average	$41.18	34.5	$1.196	$29.47	29.8	$0.988	$36.60	28.5	$1.286	$31.23	33.0	$0.947	$28.07	31.8	$0.883	$26.53	30.9	$0.859
1941: January	43.18	36.5	1.184	25.66	25.3	1.012	35.36	27.5	1.287	30.40	31.2	.974	27.60	30.3	.910	23.86	29.1	.820
1947: April	76.31	40.5	1.885	57.36	34.6	1.656	72.40	38.2	1.894	61.01	37.9	1.611	54.02	36.0	1.499	56.07	36.5	1.537
May	76.73	40.4	1.899	62.01	37.2	1.668	74.95	38.9	1.926	62.67	38.9	1.612	57.43	37.2	1.542	59.70	38.5	1.552
June	77.81	40.6	1.917	63.54	37.2	1.706	73.67	38.2	1.927	62.29	38.3	1.625	58.13	37.6	1.547	60.48	37.9	1.594
July	77.17	39.7	1.946	63.26	37.3	1.697	73.14	37.5	1.950	61.97	37.7	1.645	59.58	37.2	1.602	60.33	38.1	1.583
August	76.96	39.3	1.960	65.89	38.2	1.727	75.61	38.0	1.992	65.99	39.5	1.670	60.86	37.4	1.629	63.12	39.1	1.616
September	79.92	40.3	1.985	66.68	38.1	1.752	76.05	38.1	1.995	65.75	39.0	1.684	63.27	37.9	1.669	64.27	39.8	1.613
October	81.87	40.8	2.006	67.19	37.7	1.781	75.60	37.4	2.019	66.55	38.9	1.710	62.48	38.4	1.626	63.51	38.8	1.638
November	79.64	39.9	1.995	65.39	36.0	1.817	73.27	35.3	2.075	66.50	38.4	1.733	57.76	35.4	1.631	60.08	36.7	1.636
December	81.20	40.6	2.000	66.69	36.3	1.836	76.63	36.5	2.100	64.94	37.8	1.718	60.64	37.1	1.634	63.33	37.8	1.676
1948: January	81.62	40.6	2.012	61.51	33.0	1.862	75.84	36.7	2.069	63.94	36.5	1.750	56.54	34.5	1.638	63.79	37.7	1.690
February	82.10	40.0	2.052	59.50	31.6	1.881	74.81	35.9	2.087	61.60	35.2	1.752	55.38	33.7	1.643	64.37	37.3	1.725
March [6]	83.75	40.6	2.064	61.38	32.6	1.883	75.10	36.0	2.087	62.93	35.4	1.778	55.86	34.4	1.622	61.57	36.4	1.689
April [7]	82.06	39.8	2.063	64.47	34.3	1.879	76.63	36.6	2.092	68.01	37.7	1.805	58.47	35.3	1.656	63.79	38.0	1.677

Year and month	Nonbuilding construction											
	Total nonbuilding			Highway and street			Heavy construction			Other		
	Avg. wkly. earnings [3]	Avg. wkly. hours	Avg. hourly earnings	Avg. wkly. earnings [3]	Avg. wkly. hours	Avg. hourly earnings	Avg. wkly. earnings [3]	Avg. wkly. hours	Avg. hourly earnings	Avg. wkly. earnings [3]	Avg. wkly. hours	Avg. hourly earnings
1940: Average	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)
1941: January	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)
1947: April	$58.28	39.0	$1.495	$52.82	37.4	$1.411	$60.48	39.3	$1.538	$57.03	39.6	$1.441
May	60.22	39.7	1.515	54.23	38.6	1.404	62.83	40.0	1.571	58.60	40.2	1.459
June	60.17	40.0	1.504	56.92	40.4	1.408	61.34	39.6	1.548	60.09	40.8	1.474
July	61.76	40.3	1.533	58.18	40.6	1.434	64.09	40.1	1.597	58.49	40.5	1.445
August	62.82	40.2	1.562	58.57	40.1	1.459	65.53	40.2	1.632	58.92	40.5	1.454
September	63.85	40.2	1.587	59.68	39.9	1.495	66.84	40.1	1.666	58.26	40.9	1.425
October	64.53	40.3	1.602	60.66	40.2	1.510	67.11	40.0	1.676	60.08	41.1	1.461
November	61.67	38.2	1.615	57.55	37.7	1.528	64.03	38.1	1.680	58.50	38.9	1.502
December	62.83	38.4	1.638	60.21	38.4	1.570	65.24	38.4	1.697	58.35	38.2	1.528
1948: January	63.28	37.8	1.676	61.25	37.9	1.618	65.57	37.6	1.745	58.14	38.1	1.524
February	65.42	38.5	1.700	60.96	37.4	1.629	68.78	38.6	1.781	61.24	39.0	1.570
March [6]	65.85	38.9	1.692	60.71	37.7	1.609	68.79	39.3	1.750	62.89	38.9	1.615
April [7]	67.22	39.9	1.685	61.66	38.5	1.602	69.65	40.4	1.722	66.10	39.8	1.663

[1] Covers all contract construction firms reporting to the Bureau during the months shown (over 11,000), but not necessarily identical establishments. The data include all employees of these construction firms working at the site of privately financed projects (skilled, semiskilled, unskilled, superintendents, time clerks, etc.). Employees of these firms engaged on publicly financed projects and off-site work are excluded.

[3] Includes types not shown separately.

[3] Hourly earnings, when multiplied by weekly hours of work, may not exactly equal weekly earnings because of rounding.

[4] Not available prior to February 1946.

[5] Includes general contracting as well as general building maintenance, and other special building data.

[6] Revised.

[7] Preliminary.

D: Prices and Cost of Living

TABLE D-1: Consumers' Price Index [1] for Moderate-Income Families in Large Cities, by Group of Commodities

[1935-39=100]

Year and month	All items	Food	Apparel	Rent	Fuel, electricity, and ice			Housefurnishings	Miscellaneous
					Total	Gas and electricity	Other fuels and ice		
1913: Average	70.7	79.9	69.3	92.2	61.9	[2]	[2]	59.1	[illegible]
1914: July	71.7	81.7	69.8	92.2	62.3	[2]	[2]	60.8	[illegible]
1918: December	118.0	149.6	147.9	97.1	90.4	[2]	[2]	121.2	[illegible]
1920: June	149.4	185.0	209.7	119.1	104.8	[2]	[2]	169.7	[illegible]
1929: Average	122.5	132.5	115.3	141.4	112.5	[2]	[2]	111.7	[illegible]
1932: Average	97.6	86.5	90.8	116.9	103.4	[2]	[2]	85.4	[illegible]
1939: Average	99.4	95.2	100.5	104.3	99.0	98.9	99.3	101.3	[illegible]
August 15	98.6	93.5	100.3	104.3	97.5	99.0	96.3	100.6	[illegible]
1940: Average	100.2	96.6	101.7	104.6	99.7	98.0	101.6	100.5	[illegible]
1941: Average	105.2	105.5	106.3	106.2	102.2	97.1	107.4	107.3	[illegible]
January 1	100.8	97.6	101.2	105.0	100.8	97.5	104.0	100.2	[illegible]
December 15	110.5	113.1	114.8	108.2	104.1	96.7	111.3	116.8	[illegible]
1942: Average	116.5	123.9	124.2	108.5	105.4	96.7	113.9	122.2	[illegible]
1943: Average	123.6	138.0	129.7	108.0	107.7	96.1	119.0	125.6	[illegible]
1944: Average	125.5	136.1	138.8	108.2	109.8	95.8	123.4	136.4	[illegible]
1945: Average	128.4	139.1	145.9	108.3	110.3	95.0	125.1	145.8	[illegible]
August 15	129.3	140.9	146.4	[3]	111.4	95.2	127.2	146.0	[illegible]
1946: Average	139.3	159.6	160.2	108.6	112.4	92.4	132.0	159.2	[illegible]
June 15	133.3	145.6	157.2	108.5	110.5	92.1	128.4	156.1	[illegible]
November 15	152.2	187.7	171.0	[3]	114.8	91.8	137.2	171.0	[illegible]
1947: Average	159.2	193.8	185.8	111.2	121.1	92.0	149.5	184.4	[illegible]
May 15	156.0	187.6	185.0	109.2	117.7	92.4	142.4	181.9	[illegible]
June 15	157.1	190.5	185.7	109.2	117.7	91.7	143.0	182.6	[illegible]
July 15	158.4	193.1	184.7	110.0	119.5	91.7	146.6	184.3	[illegible]
August 15	160.3	196.5	185.9	111.2	123.8	92.0	154.8	184.2	[illegible]
September 15	163.8	203.5	187.6	113.6	124.6	92.1	156.3	187.5	[illegible]
October 15	163.8	201.6	189.0	114.9	125.2	92.2	157.4	187.8	[illegible]
November 15	164.9	202.7	190.2	115.2	126.9	92.5	160.5	188.9	[illegible]
December 15	167.0	206.9	191.2	115.4	127.8	92.6	162.0	191.4	[illegible]
1948: January 15	168.8	209.7	192.1	115.9	129.5	93.1	165.0	192.3	[illegible]
February 15	167.5	204.7	195.1	116.0	130.0	93.2	165.9	193.0	[illegible]
March 15	166.9	202.3	196.3	116.3	130.3	93.8	166.0	194.9	[illegible]
April 15	169.3	207.9	196.4	116.3	130.7	93.9	166.7	194.7	[illegible]
May 15	170.5	210.9	197.5	116.7	131.8	94.1	168.6	193.6	[illegible]

[1] The "consumers' price index for moderate-income families in large cities," formerly known as the "cost of living index" measures average changes in retail prices of selected goods, rents, and services weighted by quantities bought in 1934-36 by families of wage earners and moderate-income workers in large cities whose incomes averaged $1,524 in 1934-36.

Bureau of Labor Statistics Bulletin 699, Changes in Cost of Living in Large Cities in the United States, 1913-41, contains a detailed description of methods used in constructing this index. Additional information on the consumers' price index is given in a compilation of reports published by the Office of Economic Stabilization, Report of the President's Committee on the Cost of Living.

Mimeographed tables are available upon request showing indexes for each of the cities regularly surveyed by the Bureau and for each of the major groups of living essentials. Indexes for all large cities combined are available since 1913. The beginning date for series of indexes for individual cities varies from city to city but indexes are available for most of the 34 cities since World War I.

[2] Data not available.

[3] Rents not surveyed this month.

TABLE D–2: Consumers' Price Index for Moderate-Income Families, by City,[1] for Selected Periods

[1935-39=100]

City	May 15, 1948	Apr. 15, 1948	Mar. 15, 1948	Feb. 15, 1948	Jan. 15, 1948	Dec. 15, 1947	Nov. 15, 1947	Oct. 15, 1947	Sept. 15, 1947	Aug. 15, 1947	July 15, 1947	June 15, 1947	May 15, 1947	June 15, 1946	Aug. 15, 1939
Average	170.5	169.3	166.9	167.5	168.8	167.0	164.9	163.8	163.8	160.3	158.4	157.1	156.0	133.3	98.6
Atlanta, Ga	170.8	(2)	(2)	169.2	(2)	(2)	167.5	(2)	(2)	162.2	(2)	159.1	(2)	133.8	98.0
Baltimore, Md	(2)	(2)	170.9	(2)	(2)	171.3	(2)	(2)	167.8	(2)	(2)	160.5	159.4	135.6	98.7
Birmingham, Ala	173.7	172.7	172.0	172.8	174.4	173.8	171.6	169.7	169.1	166.6	164.1	162.1	160.7	136.5	98.5
Boston, Mass	164.1	163.6	160.8	161.3	163.1	160.4	158.3	157.5	158.6	154.5	151.9	150.3	148.6	127.9	97.1
Buffalo, N. Y	(2)	167.2	(2)	(2)	167.4	(2)	(2)	162.6	(2)	(2)	159.1	157.7	156.2	132.6	98.5
Chicago, Ill	174.9	172.1	169.0	168.8	171.5	170.1	168.3	167.3	168.3	162.7	160.1	158.3	156.8	130.9	98.7
Cincinnati, Ohio	172.3	170.8	169.3	170.1	171.2	170.3	167.1	167.1	166.3	162.2	160.4	158.5	156.8	132.2	97.3
Cleveland, Ohio	173.7	(2)	(2)	171.6	(2)	(2)	166.9	(2)	(2)	163.0	(2)	160.3	159.0	135.7	100.0
Denver, Colo	(2)	168.5	(2)	(2)	167.0	(2)	(2)	160.4	(2)	(2)	155.7	155.9	155.8	131.7	98.6
Detroit, Mich	173.2	171.8	168.7	169.0	170.6	169.0	166.6	166.7	164.2	162.8	160.2	158.7	156.8	136.4	98.5
Houston, Tex	171.5	171.4	170.0	170.4	170.8	169.3	165.8	163.4	162.1	159.7	158.4	157.6	157.6	130.5	100.7
Indianapolis, Ind	(2)	172.5	(2)	(2)	172.3	(2)	(2)	167.8	(2)	(2)	159.5	158.0	(2)	131.9	98.0
Jacksonville, Fla	(2)	(2)	172.8	(2)	(2)	173.9	(2)	(2)	168.5	(2)	(2)	163.5	(2)	138.4	98.5
Kansas City, Mo	(2)	163.3	(2)	(2)	162.4	(2)	(2)	157.9	(2)	(2)	150.5	149.5	150.5	129.4	98.6
Los Angeles, Calif	169.1	169.3	167.4	168.1	167.6	166.0	164.1	161.3	161.6	157.8	157.2	156.3	157.6	136.1	100.5
Manchester, N. H	(2)	172.0	(2)	(2)	172.5	(2)	(2)	166.1	(2)	(2)	162.1	160.4	(2)	134.7	97.8
Memphis, Tenn	(2)	(2)	172.4	(2)	(2)	173.5	(2)	(2)	169.0	(2)	(2)	160.6	(2)	134.5	97.8
Milwaukee, Wis	171.1	(2)	(2)	166.9	(2)	(2)	164.0	(2)	(2)	159.0	(2)	156.6	(2)	131.2	97.0
Minneapolis, Minn	(2)	(2)	167.7	(2)	(2)	166.2	(2)	(2)	162.1	(2)	(2)	152.9	151.5	129.4	99.7
Mobile, Ala	(2)	(2)	169.9	(2)	(2)	170.3	(2)	(2)	164.3	(2)	(2)	159.3	(2)	132.9	98.6
New Orleans, La	176.5	(2)	(2)	177.1	(2)	(2)	173.2	(2)	(2)	168.5	(2)	164.6	(2)	138.0	99.7
New York, N. Y	167.5	167.0	164.3	166.4	167.1	164.9	163.3	161.7	161.9	158.6	157.5	156.9	155.6	135.8	99.0
Norfolk, Va	171.9	(2)	(2)	170.1	(2)	(2)	168.2	(2)	(2)	163.6	(2)	160.9	(2)	135.2	97.8
Philadelphia, Pa	170.4	169.3	165.5	166.6	168.4	166.3	164.2	162.2	163.2	159.5	158.3	157.1	155.1	132.5	97.8
Pittsburgh, Pa	173.5	171.9	170.1	170.1	172.3	170.2	168.1	167.8	168.2	164.9	162.6	161.1	159.6	134.7	98.4
Portland, Maine	(2)	(2)	162.7	(2)	(2)	162.0	(2)	(2)	159.2	(2)	(2)	153.3	(2)	128.7	97.1
Portland, Oreg	(2)	175.8	(2)	(2)	174.4	(2)	(2)	166.5	(2)	(2)	162.1	161.5	(2)	140.3	100.1
Richmond, Va	(2)	163.4	(2)	(2)	165.1	(2)	(2)	161.7	(2)	(2)	153.8	152.6	(2)	128.2	98.0
St. Louis, Mo	(2)	(2)	167.8	(2)	(2)	167.9	(2)	(2)	165.4	(2)	(2)	155.6	154.6	131.2	98.1
San Francisco, Calif	(2)	(2)	171.4	(2)	(2)	168.9	(2)	(2)	165.7	(2)	(2)	159.3	160.5	137.8	99.3
Savannah, Ga	(2)	177.6	(2)	(2)	175.6	(2)	(2)	171.5	(2)	(2)	165.9	165.8	165.5	140.6	99.3
Scranton, Pa	170.2	(2)	(2)	166.5	(2)	(2)	165.2	(2)	(2)	162.8	(2)	159.9	(2)	132.2	96.0
Seattle, Wash	174.3	(2)	(2)	170.7	(2)	(2)	166.2	(2)	(2)	161.8	(2)	158.3	158.5	137.0	100.3
Washington, D. C	166.7	(2)	(2)	163.2	(2)	(2)	161.7	(2)	(2)	159.1	(2)	156.0	154.6	133.8	98.6

[1] The indexes are based on time-to-time changes in the cost of goods and services purchased by moderate-income families in large cities. They do not indicate whether it costs more to live in one city than in another.

[2] Through June 1947, consumers' price indexes were computed monthly for 21 cities and in March, June, September, and December for 13 additional cities; beginning July 1947 indexes were computed monthly for 10 cities and once every 3 months for 24 additional cities according to a staggered schedule.

TABLE D–3: Consumers' Price Index for Moderate-Income Families, by City and Group of Commodities

[1935–39=100]

City	Food		Apparel		Rent		Fuel, electricity and ice						House-furnishings		Miscellaneous	
							Total		Gas and electricity		Other fuels and ice					
	May 15, 1948	Apr. 15, 1948	May 15, 1948	Apr. 15, 1948	May 15, 1948	Apr. 15, 1948	May 15, 1948	Apr. 15, 1948	May 15, 1948	Apr. 15, 1948	May 15, 1948	Apr. 15, 1948	May 15, 1948	Apr. 15, 1948	May 15, 1948	Apr. 15, 1948
Average	210.9	207.9	197.5	196.4	116.7	116.3	131.8	130.7	94.1	93.9	168.6	166.7	193.6	194.7	147.5	
Atlanta, Ga	207.9	204.7	200.4	(1)	117.5	(2)	144.3	140.4	76.9	76.9	206.2	198.7	191.4	(1)	151.6	(1)
Baltimore, Md	221.6	217.8	(1)	(1)	(2)	(2)	139.6	139.2	121.1	120.8	154.6	154.0	(1)	(1)	(1)	(1)
Birmingham, Ala	209.6	207.5	204.5	204.4	137.5	(2)	131.8	131.8	79.6	79.6	170.7	170.7	191.1	191.8	143.3	
Boston, Mass	199.2	198.2	189.2	188.1	(2)	(2)	148.1	148.8	111.6	111.4	167.5	168.7	182.8	182.6	143.0	
Buffalo, N. Y	207.9	200.2	(1)	196.8	(2)	119.7	130.7	128.4	96.0	96.0	161.5	157.2	(1)	200.9	(1)	
Chicago, Ill	218.4	212.2	199.2	199.2	(2)	(2)	125.7	125.2	83.5	83.5	169.5	168.5	178.8	179.9	146.9	
Cincinnati, Ohio	213.5	210.1	193.1	192.2	(2)	(2)	137.6	135.3	95.1	97.1	178.1	171.7	189.8	189.6	149.0	
Cleveland, Ohio	218.0	213.0	195.8	(1)	123.9	(2)	139.3	137.0	105.6	105.6	171.5	167.0	180.6	(1)	147.2	(1)
Denver, Colo	213.3	208.5	(1)	194.8	(2)	121.0	106.7	106.7	69.2	69.2	149.6	149.6	(1)	216.2	(1)	
Detroit, Mich	208.0	203.9	195.0	195.7	(2)	124.4	141.8	137.8	83.9	83.8	185.7	178.8	203.4	203.1	162.2	
Houston, Tex	218.1	219.3	208.9	206.4	119.5	(2)	94.3	94.3	81.8	81.8	128.0	128.0	195.4	194.6	149.2	
Indianapolis, Ind	208.0	205.7	(1)	191.2	(2)	127.2	148.5	144.3	86.6	86.6	185.0	178.2	(1)	184.7	(1)	
Jacksonville, Fla	217.3	214.7	(1)	(1)	(2)	(2)	142.5	142.5	100.2	100.2	179.1	179.1	(1)	(1)	(1)	
Kansas City, Mo	202.2	197.9	(1)	187.8	(2)	121.0	120.7	120.7	66.5	66.6	170.3	170.1	(1)	181.5	(1)	
Los Angeles, Calif	212.6	213.9	195.8	193.7	120.9	(2)	94.3	94.3	89.3	89.3	118.0	118.0	187.5	188.7	146.5	
Manchester, N. H	208.9	204.9	(1)	190.2	(2)	110.3	150.9	151.7	94.6	94.6	179.1	180.2	(1)	196.3	(1)	
Memphis, Tenn	223.2	222.2	(1)	(1)	(2)	(2)	128.0	128.0	77.0	77.0	156.2	156.2	(1)	(1)	(1)	
Milwaukee, Wis	213.7	210.9	200.0	(1)	116.0	(2)	139.4	136.3	101.6	101.6	165.4	160.3	194.0	(1)	144.8	
Minneapolis, Minn	206.0	203.0	(1)	(1)	(2)	(2)	135.3	133.4	78.5	78.5	172.2	169.1	(1)	(1)	(1)	
Mobile, Ala	217.0	216.3	(1)	(1)	(2)	(2)	128.6	128.6	84.0	84.1	163.3	163.3	(1)	(1)	(1)	
New Orleans, La	223.0	228.7	205.5	(1)	111.2	(2)	112.8	112.8	75.1	75.1	152.9	152.9	188.2	(1)	142.9	
New York, N. Y	210.0	208.6	195.9	195.5	(2)	106.6	129.0	128.3	99.9	98.4	173.7	174.1	182.7	184.2	146.3	
Norfolk, Va	213.3	210.5	194.4	(1)	114.1	(2)	143.3	143.3	97.8	97.8	179.1	179.0	189.7	(1)	147.2	
Philadelphia, Pa	205.0	202.8	193.8	191.3	118.1	(2)	135.1	135.1	103.0	103.0	159.7	159.7	196.7	198.0	147.4	
Pittsburgh, Pa	213.7	209.8	222.4	221.9	(2)	115.9	134.4	132.9	103.3	103.2	187.8	183.9	200.9	199.2	143.9	
Portland, Maine	199.4	197.0	(1)	(1)	(2)	(2)	143.6	143.7	100.5	100.3	164.6	164.9	(1)	(1)	(1)	
Portland, Oreg	229.5	223.2	(1)	195.9	(2)	122.5	126.7	126.4	95.5	94.9	165.0	165.0	(1)	187.3	(1)	
Richmond, Va	203.4	200.6	(1)	193.8	(2)	112.1	137.7	135.1	95.6	95.6	163.4	159.2	(1)	205.5	(1)	
St. Louis, Mo	218.2	213.6	(1)	(1)	(2)	(2)	133.5	129.4	94.1	94.1	168.3	160.6	(1)	(1)	(1)	
San Francisco, Calif	223.4	219.5	(1)	(1)	(2)	(2)	82.8	82.8	72.7	72.7	120.5	120.5	(1)	(1)	(1)	
Savannah, Ga	223.3	221.4	(1)	192.8	(2)	116.9	147.1	147.1	91.2	91.2	179.6	179.6	(1)	205.2	(1)	
Scranton, Pa	212.2	208.9	202.1	(1)	106.7	(2)	134.5	134.5	91.8	91.8	160.6	160.6	180.8	(1)	136.3	(1)
Seattle, Wash	221.4	215.5	191.8	(1)	121.3	(2)	122.1	121.4	91.5	91.5	147.6	146.4	189.9	(1)	152.0	(1)
Washington, D. C	209.7	205.1	220.1	(1)	103.0	(2)	130.9	129.8	94.4	94.4	155.1	153.4	204.5	(1)	149.1	(1)

[1] Prices of apparel, housefurnishings, and miscellaneous goods and services are obtained monthly in 10 cities and once every 3 months in 24 additional cities according to a staggered schedule.

[2] Rents are surveyed every 3 months in 34 large cities according to a staggered schedule.

TABLE D–4: Indexes of Retail Prices of Foods,[1] by Group, for Selected Periods

[1935–39=100]

Year and month	All foods	Cereals and bakery products	Meats, poultry, and fish	Meats				Chickens	Fish	Dairy products	Eggs	Fruits and vegetables				Beverages	Fats and oils	Sugar and sweets
				Total	Beef and veal	Pork	Lamb					Total	Fresh	Canned	Dried			
[illegible]: Average	124.0	105.5	101.2	-------	-------	-------	-------	-------	-------	129.4	136.1	169.5	173.6	124.8	175.4	131.5	126.2	175.4
[illegible]: Average	137.4	115.7	117.8	-------	-------	-------	-------	-------	-------	127.4	141.7	210.8	226.2	122.9	152.4	170.4	145.0	120.0
[illegible]: Average	132.5	107.6	127.1	-------	-------	-------	-------	-------	-------	131.0	143.8	169.0	173.5	124.3	171.0	164.8	127.2	114.3
[illegible]: Average	86.5	82.6	79.3	-------	-------	-------	-------	-------	-------	84.9	82.3	103.5	105.9	91.1	91.2	112.6	71.1	89.6
[illegible]: Average	95.2	94.5	96.6	96.6	101.1	88.9	99.5	93.8	101.0	95.9	91.0	94.5	95.1	92.3	93.3	96.5	87.7	100.6
August	93.5	93.4	95.7	95.4	99.6	88.0	98.8	94.6	99.6	93.1	90.7	92.4	92.8	91.6	90.3	94.9	84.5	95.6
[illegible]0: Average	96.6	96.8	95.8	94.4	102.8	81.1	99.7	94.8	110.6	101.4	93.8	96.5	97.3	92.4	100.6	92.5	82.2	96.8
[illegible]1: Average	105.5	97.9	107.5	106.5	110.8	100.1	106.6	102.1	124.5	112.0	112.2	103.2	104.2	97.9	106.7	101.5	94.0	106.4
December	113.1	102.5	111.1	109.7	114.4	103.2	108.1	100.5	138.9	120.5	138.1	110.5	111.0	106.3	118.3	114.1	108.5	114.4
[illegible]2: Average	123.9	105.1	126.0	122.5	123.6	120.4	124.1	122.6	163.0	125.4	136.5	130.8	132.8	121.6	136.3	122.1	119.6	126.5
[illegible]3: Average	138.0	107.6	133.8	124.2	124.7	119.9	136.9	146.1	206.5	134.6	161.9	168.8	178.0	130.6	158.9	124.8	126.1	127.1
[illegible]4: Average	136.1	108.4	129.9	117.9	118.7	112.2	134.5	151.0	207.6	133.6	153.9	168.2	177.2	129.5	164.5	124.3	123.3	126.5
[illegible]5: Average	139.1	109.0	131.2	118.0	118.4	112.6	136.0	154.4	217.1	133.9	164.4	177.1	188.2	130.2	168.2	124.7	124.0	126.5
August	140.9	109.1	131.8	118.1	118.5	112.6	136.4	157.3	217.8	133.4	171.4	183.5	196.2	130.3	168.6	124.7	124.0	126.6
[illegible]6: Average	159.6	125.0	161.3	150.8	150.5	148.2	163.9	174.0	236.2	165.1	168.8	182.4	190.7	140.8	190.4	139.6	152.1	143.9
June	145.6	122.1	134.0	120.4	121.2	114.3	139.0	162.8	219.7	147.8	147.1	183.5	196.7	127.5	172.5	125.4	126.4	136.2
November	187.7	140.6	203.6	197.9	191.0	207.1	205.4	188.9	265.0	198.5	201.6	184.5	182.3	167.7	251.6	167.8	244.4	170.5
[illegible]7: Average	193.8	155.4	217.1	214.7	213.6	215.9	220.1	183.2	271.4	186.2	200.8	199.4	201.5	166.2	263.5	186.8	197.5	180.0
May	187.6	154.2	203.9	200.6	197.1	204.2	209.6	179.6	255.1	171.5	178.9	207.0	209.5	172.3	268.1	188.9	200.5	179.3
June	190.5	154.6	216.9	216.1	216.4	213.6	226.7	182.3	254.7	171.5	183.0	205.0	208.0	169.7	262.6	181.3	188.3	179.7
July	193.1	155.0	220.2	219.7	220.8	216.4	228.6	181.9	260.6	178.8	203.0	202.0	204.2	168.5	263.6	180.8	182.0	179.7
August	196.5	155.7	228.4	229.8	230.5	229.3	232.1	180.5	262.4	183.8	212.3	199.8	202.1	165.7	263.4	181.7	178.5	179.8
September	203.5	157.8	240.6	241.9	239.7	245.9	244.0	191.4	275.7	195.2	235.9	198.2	202.4	157.3	261.2	187.0	176.6	181.8
October	201.6	160.3	235.5	234.9	233.6	240.9	226.2	189.5	286.5	190.1	232.7	196.6	201.1	155.2	255.6	190.8	190.0	181.8
November	202.7	167.9	227.0	223.6	226.3	219.7	227.1	184.6	302.4	198.4	224.7	199.6	205.0	156.5	251.7	194.7	196.4	183.2
December	206.9	170.5	227.3	223.2	227.6	218.2	221.5	190.7	302.3	204.9	236.1	205.3	212.1	157.3	255.4	198.5	208.2	183.7
[illegible]8: January	209.7	172.7	237.5	233.4	239.7	225.9	231.5	200.0	310.9	205.7	213.6	208.3	215.7	158.0	256.8	201.9	209.3	183.4
February	204.7	171.8	224.8	218.0	228.2	202.2	223.4	196.4	315.0	204.4	189.2	213.0	222.0	157.7	256.0	204.0	194.2	176.8
March	202.3	171.0	224.7	218.2	228.5	204.3	216.8	194.7	313.6	201.1	186.3	206.9	214.2	157.7	253.9	204.4	191.7	174.4
April	207.9	171.0	233.8	229.5	241.2	212.3	232.6	198.4	307.2	205.8	184.7	217.4	228.4	156.4	252.1	204.4	191.4	173.6
May	210.9	171.1	244.2	242.0	255.8	219.1	253.5	202.1	305.0	204.8	184.9	218.0	229.4	156.4	250.0	204.6	196.6	173.0

[1] The Bureau of Labor Statistics retail food prices are obtained monthly during the first three days of the week containing the fifteenth of the month, through voluntary reports from chain and independent retail food dealers. Articles included are selected to represent food sales to moderate-income families.

[2] The indexes, based on the retail prices of 50 foods, are computed by the fixed-base-weighted-aggregate method, using weights representing (1) relative importance of chain and independent store sales in computing city average prices; (2) food purchases by families of wage earners and moderate-income workers, in computing city indexes; and (3) population weights to combine city aggregates in order to derive average prices and indexes for all cities combined.

Indexes of retail food prices in 56 large cities combined, by commodity groups, for the years 1923 through 1945 (1935–39=100), may be found in Bulletin No. 899, "Retail Prices of Food—1944 and 1945," Bureau of Labor Statistics, U. S. Department of Labor, table 2, p. 4. Mimeographed tables of the same data, by months, January 1935 to date, are available upon request.

TABLE D–5: Indexes of Retail Prices of Foods, by City

[1935-39=100]

City	May 1948	Apr. 1948	Mar. 1948	Feb. 1948	Jan. 1948	Dec. 1947	Nov. 1947	Oct. 1947	Sept. 1947	Aug. 1947	July 1947	June 1947	May 1947	June 1946	Aug. 1939
United States	210.9	207.9	202.3	204.7	209.7	206.9	202.7	201.6	203.5	196.5	193.1	190.5	187.6	145.6	
Atlanta, Ga	207.9	204.7	201.1	205.6	211.9	211.1	206.9	211.1	209.4	198.9	194.5	193.0	190.3	141.0	
Baltimore, Md	221.6	217.8	212.3	214.5	220.2	217.8	211.8	211.5	212.8	206.9	204.6	202.2	198.5	152.4	
Birmingham, Ala	209.6	207.5	207.2	211.1	218.0	217.0	212.7	210.7	210.9	204.8	201.8	197.3	195.8	147.7	
Boston, Mass	199.2	198.2	192.2	195.0	200.3	195.7	192.4	191.8	195.3	187.9	183.5	179.6	175.6	138.0	
Bridgeport, Conn	207.5	201.4	195.6	197.5	204.5	199.0	196.5	195.6	196.8	191.3	187.7	186.9	180.8	139.1	
Buffalo, N. Y	207.9	200.2	196.6	196.7	202.1	200.3	194.8	193.3	196.5	192.4	188.7	187.0	182.5	140.2	
Butte, Mont	207.4	201.3	200.5	202.1	204.8	195.8	194.2	195.0	195.7	193.8	188.9	185.9	184.7	139.7	
Cedar Rapids, Iowa [1]	219.7	217.0	208.2	208.9	214.6	213.0	209.1	208.7	212.0	204.4	203.7	203.2	197.3	148.2	
Charleston, S. C	206.7	204.8	199.1	200.2	206.6	203.1	198.9	201.4	198.0	189.8	190.6	188.3	187.0	140.8	
Chicago, Ill	218.4	212.2	204.3	204.8	213.2	210.5	207.8	207.1	211.0	203.1	198.4	193.9	190.6	142.8	
Cincinnati, Ohio	213.5	210.1	206.1	209.0	213.0	211.6	204.2	206.9	206.7	198.3	194.3	191.1	187.9	141.4	
Cleveland, Ohio	218.0	213.0	209.3	212.5	217.6	212.3	206.1	208.7	211.0	204.3	199.7	198.3	194.3	149.3	
Columbus, Ohio	195.3	193.1	190.8	192.6	196.7	194.4	190.1	192.0	190.0	184.9	179.3	178.4	176.6	136.4	
Dallas, Tex	210.5	206.7	203.0	205.7	210.3	208.2	204.4	201.6	200.3	195.5	192.8	191.4	192.5	142.4	
Denver, Colo	213.3	208.5	202.3	203.4	208.6	205.6	201.0	197.2	199.0	195.8	191.6	191.9	191.9	145.3	
Detroit, Mich	208.0	203.9	197.7	199.4	205.1	202.0	196.7	199.0	197.4	195.5	191.4	188.5	182.7	145.4	
Fall River, Mass	207.2	201.2	197.2	198.4	202.6	199.0	195.0	195.6	195.8	190.0	188.7	186.3	181.7	138.1	
Houston, Tex	218.1	219.3	216.0	218.1	221.5	218.1	210.2	208.7	206.4	200.8	198.7	196.2	197.1	144.0	
Indianapolis, Ind	208.0	205.7	203.8	204.2	208.2	208.8	204.3	204.5	203.0	195.5	191.7	188.7	185.1	141.5	
Jackson, Miss. [1]	218.0	218.3	214.6	221.3	223.3	223.2	213.1	212.6	212.0	209.5	205.6	202.7	201.7	150.6	
Jacksonville, Fla	217.3	214.7	208.1	212.2	216.2	216.6	211.0	214.7	209.1	205.0	201.8	199.1	196.0	150.8	
Kansas City, Mo	202.2	197.9	193.0	192.5	199.4	197.3	194.2	193.5	193.5	183.5	181.3	180.0	180.7	134.8	
Knoxville, Tenn. [1]	236.2	233.9	230.0	239.6	244.3	243.5	235.6	236.9	235.9	225.9	225.8	223.0	216.8	165.6	
Little Rock, Ark	209.2	206.4	203.8	206.1	211.4	211.8	209.4	209.4	201.3	195.1	193.6	189.8	188.1	139.1	
Los Angeles, Calif	212.6	213.9	208.9	210.9	212.2	211.1	206.7	201.9	204.2	195.4	193.8	193.8	196.7	154.8	
Louisville, Ky	201.6	198.2	193.9	198.0	200.1	198.9	195.8	196.2	198.2	189.7	185 4	183.4	180.0	135.6	
Manchester, N. H	208 9	204.9	202 0	203.2	208.8	204.7	199.0	198.0	201.3	196.8	192.6	190.3	185.1	144.4	
Memphis, Tenn	223.2	222.2	219.9	224.5	230.7	229.7	226.2	223.6	220.5	213.5	210.1	205.1	201.6	153.6	
Milwaukee, Wis	213.7	210.9	204.6	203.4	206.4	204.6	200.7	197.6	200.1	196.8	193.4	190.8	186.6	144.3	
Minneapolis, Minn	206.0	203.0	198.1	197.2	202.6	199.3	193.7	194.6	197.2	187.4	182.5	182.6	179.0	137.5	
Mobile, Ala	217.0	216.3	212.2	215.5	219.6	216.3	206.8	209.3	206.8	200.8	198.6	196.9	197.0	149.8	
Newark, N. J	204.7	203.0	196.4	200.3	201.4	199.4	197.4	194.6	196.8	190.0	186.3	184.1	181.1	147.9	
New Haven, Conn	201.2	197.7	193.0	195.8	201.5	198.9	193.4	193.8	196.1	191.2	187.8	186.4	180.5	140.4	
New Orleans, La	223.0	228.7	224.3	225.6	226.4	222.1	220.2	219.5	216.8	211.0	207.2	203.7	201.1	157.6	
New York, N. Y	210.0	208.6	201.2	206.7	209.7	206.1	203.9	200.6	203.0	194.3	191.7	187.9	184.8	149.2	
Norfolk, Va	213.3	210.5	206.0	210.2	216.5	216.1	210.6	214.3	210.7	203.2	199.5	198.0	198.8	146.0	
Omaha, Nebr	207.2	202.5	197.7	197.7	204.2	202.6	198.1	195.6	197.9	191.1	187.2	187.4	183.8	139.5	
Peoria, Ill	223.8	217.0	205.8	208.9	219.5	224.1	220.3	212.3	212.9	211.4	205.5	201.7	195.1	151.3	
Philadelphia, Pa	205.0	202.8	196.3	199.3	205.6	201.8	197.5	196.2	199.8	191.7	188.9	187.1	183.4	143.5	
Pittsburgh, Pa	213.7	209.8	204.8	205.4	212.8	209.6	205.2	206.1	209.8	202.0	199.9	196.9	192.4	147.1	
Portland, Maine	199.4	197.0	192.4	193.5	199.6	195.2	190.7	190.9	193.6	191.0	188.4	185.3	180.2	138.4	
Portland, Oreg	229.5	223.2	220.4	219.2	223.0	219.0	214.2	208.7	209.9	205.0	202.7	199.7	200.8	158.4	
Providence, R. I	217.9	213.1	205.5	210.5	215.0	210.5	206.1	206.5	208.2	200.6	199.3	194.2	186.1	144.9	
Richmond, Va	203.4	200.6	197.6	201.3	209.1	207.6	201.0	205.1	203.8	194.3	188.4	185.8	186.3	138.4	
Rochester, N. Y	205.1	200.8	196.7	196.9	202.1	200.1	194.9	192.3	195.5	192.2	187.4	185.2	180.5	142.5	
St. Louis, Mo	218.2	213.6	210.9	212.8	217.2	215.2	209.9	209.4	215.9	205.0	200.9	196.8	193.4	147.4	
St. Paul, Minn	203.5	200.5	198.3	194.0	198.6	195.9	191.2	191.0	192.1	183.4	179.3	178.5	176.8	137.3	
Salt Lake City, Utah	216.8	212.9	207.3	207.9	211.3	209.7	202.6	199.4	200.7	197.6	192.2	192.6	189.3	151.7	
San Francisco, Calif	223.4	219.5	215.3	215.4	218 9	215.7	214.4	208.8	210.4	200.4	200.4	196.9	199.9	155.5	
Savannah, Ga	223.3	221.4	213.6	219.6	222.9	222.2	217.5	219.2	220.3	215.1	207.4	209.4	208.2	158.5	
Scranton, Pa	212.2	208.9	201.8	203.2	213.1	210.0	202.8	199.1	206.6	199.5	196.1	194.9	189.2	144.0	
Seattle, Wash	221.4	215.5	212.5	214.7	218.4	213.4	207.6	205.4	206.0	200.3	197.1	193 3	193.9	151.6	
Springfield, Ill	219.3	212.6	209.1	211.4	217.9	217.3	213.2	213.6	217.1	211.0	205.9	203.5	200.2	150.1	
Washington, D. C	209.7	205.1	198.9	202.0	209.5	207.4	202.0	200.9	202.9	197.1	190.2	190.9	187.8	145.5	
Wichita, Kans [1]	225.3	220.3	215.9	215.1	222.4	221.6	215.1	213.8	213.8	201.8	199.8	197.3	195.3	154.4	
Winston-Salem, N. C. [1]	208.4	206.0	202.7	207.9	214.5	211.3	207.1	208.4	205.8	199.0	195.0	194.4	191.8	145.3	

[1] June 1940=100.

TABLE D–6: Average Retail Prices and Indexes of Selected Foods [1]

Commodity	Average price May 1948	Indexes 1935-39=100													
		May 1948	Apr. 1948	Mar. 1948	Feb. 1948	Jan. 1948	Dec. 1947	Nov. 1947	Oct. 1947	Sept. 1947	Aug. 1947	July 1947	June 1947	May 1947	Aug. 1939
Cereals and bakery products:															
Cereals:	*Cents*														
Flour, wheat, 5 pounds	48.9	189.4	189.6	192.4	197.3	210.9	209.6	204.8	194.0	189.2	187.0	187.4	189.9	191.5	82.1
Corn flakes, 11 ounces	16.6	175.7	175.8	173.3	172.8	172.9	169.3	164.3	157.9	151.7	144.9	140.7	135.3	132.7	92.7
Corn meal, pound	11.1	215.7	216.4	216.6	219.9	219.9	218.1	217.5	211.9	204.5	192.4	182.1	178.1	176.6	90.7
Rice [7], do	21.1	118.6	118.4	118.1	118.4	117.3	116.9	116.8	114.0	111.5	106.8	100.0	(4)	(4)	(4)
Rolled oats [2], 20 ounces	17.1	154.8	154.8	153.5	153.4	153.6	152.6	151.1	143.4	135.6	130.9	128.3	127.7	126.1	(4)
Bakery products:															
Bread, white, pound	13.9	163.5	163.2	163.1	163.1	162.3	159.8	157.5	149.3	147.9	146.8	146.7	146.5	146.1	93.2
Vanilla cookies, do	43.6	188.8	189.2	187.9	187.7	183.7	180.2	178.7	176.2	176.3	174.9	174.9	173.3	172.2	(5)
Meats, poultry, and fish:															
Meats:															
Beef:															
Round steak, do	90.3	267.3	250.7	234.0	231.4	248.4	236.4	234.2	243.8	256.4	247.6	236.7	230.9	205.2	102.7
Rib roast, do	71.9	249.9	238.2	227.0	227.9	242.3	231.7	229.9	237.0	241.7	231.8	220.4	216.0	197.6	97.4
Chuck roast, do	63.6	283.4	263.3	249.6	250.6	263.1	251.5	253.5	260.1	258.9	248.5	233.3	225.7	204.4	97.1
Hamburger [3], do	55.2	178.6	166.3	158.0	157.3	159.7	151.5	150.3	154.4	155.8	151.3	145.3	142.0	130.7	(5)
Veal:															
Cutlets, do	97.9	245.6	234.9	226.8	228.0	230.0	213.1	211.8	217.7	222.6	212.0	210.2	211.4	197.0	101.1
Pork:															
Chops, do	77.0	233.5	223.2	212.1	200.1	219.4	206.2	214.7	248.8	257.9	239.2	226.4	225.3	214.2	90.8
Bacon, sliced, do	75.9	199.1	191.3	185.7	194.7	227.7	228.8	227.6	230.4	224.7	208.4	195.5	189.9	181.2	80.9
Ham, whole, do	65.7	223.7	220.9	213.6	212.0	234.8	223.3	218.2	244.2	256.7	245.3	231.2	227.7	217.5	92.7
Salt pork, do	42.5	203.5	209.9	214.7	238.2	259.6	275.3	265.6	243.7	227.7	194.9	188.3	189.5	192.3	69.0
Lamb:															
Leg, do	73.1	257.6	236.3	220.3	226.9	235.2	225.0	230.7	229.8	247.9	235.8	232.3	233.0	215.0	95.7
Poultry: Roasting chickens, do	61.0	202.1	198.4	194.7	196.4	200.0	190.7	184.6	185.5	191.4	180.5	181.9	182.3	179.6	94.6
Fish:															
Fish (fresh, frozen), do	(3)	261.3	264.9	274.4	276.3	270.5	260.7	262.3	248.8	242.7	231.8	231.5	225.1	227.4	98.8
Salmon, pink, 16-ounce can	52.4	399.7	397.1	394.1	393.7	394.9	391.0	386.7	365.6	342.2	323.1	317.5	313.8	308.4	97.4
Dairy products:															
Butter, pound	92.5	254.2	255.4	237.4	248.4	258.1	262.0	242.2	222.4	251.7	222.1	210.6	194.3	190.8	84.0
Cheese, do	64.5	248.1	241.5	243.7	247.9	242.2	236.1	230.9	226.2	221.0	215.6	215.6	211.4	213.9	92.3
Milk, fresh (delivered), quart	20.8	171.5	174.3	174.6	174.3	173.3	171.2	171.0	167.5	163.0	158.8	155.9	151.8	152.9	97.1
Milk, fresh (grocery), do	20.1	177.3	179.0	179.5	179.7	178.5	176.3	175.2	171.8	167.2	162.4	159.5	155.1	156.4	96.3
Milk, evaporated, 14½-ounce can	14.4	202.1	197.2	197.1	195.8	189.6	186.4	182.3	177.2	175.3	175.2	175.1	176.6	179.8	93.9
Eggs: Eggs, fresh, dozen	64.1	184.9	184.7	186.3	189.2	213.6	236.1	224.7	232.7	235.9	212.3	203.0	183.0	178.9	90.7
Fruits and vegetables:															
Fresh fruits:															
Apples, pound	12.0	229.1	208.2	205.6	208.6	219.2	221.8	214.3	216.1	219.7	209.8	259.6	295.9	286.0	81.6
Bananas, do	15.6	257.8	256.3	255.3	257.4	257.9	257.8	256.9	254.6	252.3	245.9	247.1	250.0	251.2	97.3
Oranges, size 200, dozen	42.2	149.2	142.9	145.1	135.9	133.5	133.4	147.9	172.2	174.1	181.0	151.1	150.8	153.5	96.9
Fresh vegetables:															
Beans, green, pound	24.9	229.1	229.5	191.2	257.2	199.9	186.7	237.1	215.4	157.4	122.2	138.3	164.3	192.7	61.7
Cabbage, do	7.7	202.3	250.5	174.8	191.5	222.9	237.2	192.9	165.3	170.0	234.8	168.9	204.5	241.7	103.2
Carrots, bunch	16.7	310.1	254.3	227.8	261.3	246.3	311.3	261.3	241.8	205.7	179.4	180.2	170.1	171.5	84.9
Lettuce, head	16.5	200.7	159.9	138.0	153.5	201.0	179.9	170.8	151.6	189.1	172.4	146.3	139.6	181.7	97.6
Onions, pound	12.0	291.0	440.9	386.2	364.8	285.6	260.7	229.3	194.5	188.9	190.2	184.7	180.1	180.3	86.8
Potatoes, 15 pounds	94.0	261.7	253.6	247.0	246.9	234.4	222.5	211.1	201.7	202.7	214.8	252.2	244.5	219.5	91.9
Spinach, pound	11.4	158.4	167.4	171.5	221.5	191.4	167.5	154.1	172.2	195.5	174.4	165.7	151.2	154.7	118.4
Sweetpotatoes, do	11.7	225.2	213.1	208.3	207.2	196.4	183.9	173.3	174.2	195.8	234.9	226.7	223.8	200.0	115.7
Canned fruits:															
Peaches, No. 2½ can	31.0	160.8	160.6	161.0	161.5	162.4	161.9	162.1	162.4	163.8	168.1	168.6	168.1	166.7	92.3
Pineapple, do	36.3	166.7	166.3	164.3	163.0	162.1	160.1	158.2	154.6	152.8	151.7	152.0	150.7	152.5	96.0
Canned vegetables:															
Corn, No. 2 can	19.6	157.9	156.6	156.9	157.0	156.6	155.5	152.5	149.8	146.9	147.1	146.5	145.5	145.6	88.6
Peas, do	14.7	112.3	113.5	115.5	118.0	118.0	117.9	117.9	118.0	116.9	118.3	118.7	120.0	123.2	89.8
Tomatoes, do	16.5	183.0	183.2	186.2	185.0	185.9	185.5	185.4	183.9	191.8	213.2	220.6	224.7	230.4	92.5
Dried fruits: Prunes, pound	21.1	206.9	208.6	211.2	216.0	217.8	219.4	219.0	228.7	236.8	245.3	246.4	245.5	254.7	94.7
Dried vegetables: Navy beans, do	22.9	311.6	314.3	314.9	312.9	311.9	306.0	297.5	292.3	294.2	286.6	285.4	284.2	284.2	83.0
Beverages: Coffee, do	51.3	204.2	204.0	204.0	203.6	201.5	198.1	194.3	190.5	186.6	181.3	180.5	181.1	189.1	93.3
Fats and oils:															
Lard, do	29.6	198.2	194.1	191.9	196.0	238.8	242.7	228.6	215.9	181.3	166.8	170.3	180.8	191.8	65.2
Hydrogenated veg. shortening [6], do	43.8	211.4	207.1	214.4	217.6	225.8	220.0	197.7	191.5	190.9	203.6	212.5	219.2	236.6	93.9
Salad dressing, pint	39.8	164.4	159.8	159.0	158.8	156.1	152.4	150.2	149.7	150.3	151.8	154.2	158.6	173.2	(5)
Oleomargarine, pound	42.4	232.6	223.9	224.0	227.8	230.5	228.9	214.4	208.9	198.0	219.1	219.9	221.5	227.3	93.6
Sugar and sweets:															
Sugar, do	9.3	173.8	174.5	175.3	177.7	184.3	184.6	184.1	182.7	182.0	180.7	180.6	181.0	180.6	95.6

[1] Beginning in August, pricing was discontinued for macaroni, whole wheat bread, rye bread, soda crackers, beef liver, sliced ham, lamb rib chops, canned grapefruit juice, canned green beans, tea, standard shortening in cartons, peanut butter, and corn sirup. Their importance in the family budget has been allocated to related foods.

[2] February 1943=100.

[3] Average price not computed.

[4] Index not computed.

[5] Not priced in earlier period.

[6] Formerly published as shortening in other containers.

[7] July 1947=100.

[8] Inadequate reports.

TABLE D–7: Indexes of Wholesale Prices,[1] by Group of Commodities, for Selected Periods

[1926=100]

Year and month	All commodities [2]	Farm products	Foods	Hides and leather products	Textile products	Fuel and lighting materials	Metals and metal products [2]	Building materials	Chemicals and allied products	House-furnishings	Miscellaneous commodities	Raw materials	Semi-manufactured articles	Manufactured products [2]	All commodities except farm products [2]	All commodities except farm products and foods
1913: Average	69.8	71.5	64.2	68.1	57.3	61.3	90.8	56.7	80.2	56.1	93.1	68.8	74.9	69.4	69.0	
1914: July	67.3	71.4	62.9	69.7	55.3	55.7	79.1	52.9	77.9	56.7	88.1	67.3	67.8	66.9	65.7	
1918: November	136.3	150.3	128.6	131.6	142.6	114.3	143.5	101.8	178.0	99.2	142.3	138.8	162.7	130.4	131.0	
1920: May	167.2	169.8	147.3	193.2	188.3	159.8	155.5	164.4	173.7	143.3	176.5	163.4	253.0	157.8	165.4	
1929: Average	95.3	104.9	99.9	109.1	90.4	83.0	100.5	95.4	94.0	94.3	82.6	97.5	93.9	94.5	93.3	
1932: Average	64.8	48.2	61.0	72.9	54.9	70.3	80.2	71.4	73.9	75.1	64.4	55.1	59.3	70.3	68.3	
1939: Average	77.1	65.3	70.4	95.6	69.7	73.1	94.4	90.5	76.0	86.3	74.8	70.2	77.0	80.4	79.5	
August	75.0	61.0	67.2	92.7	67.8	72.6	93.2	89.6	74.2	85.6	73.3	66.5	74.5	79.1	77.9	
1940: Average	78.6	67.7	71.3	100.8	73.8	71.7	95.8	94.8	77.0	88.5	77.3	71.9	79.1	81.6	80.8	
1941: Average	87.3	82.4	82.7	108.3	84.8	76.2	99.4	103.2	84.4	94.3	82.0	83.5	86.9	89.1	88.3	
December	93.6	94.7	90.5	114.8	91.8	78.4	103.3	107.8	90.4	101.1	87.6	92.3	90.1	94.6	93.3	
1942: Average	98.8	105.9	99.6	117.7	96.9	78.5	103.8	110.2	95.5	102.4	89.7	100.6	92.6	98.6	97.0	
1943: Average	103.1	122.6	106.6	117.5	97.4	80.8	103.8	111.4	94.9	102.7	92.2	112.1	92.9	100.1	98.7	
1944: Average	104.0	123.3	104.9	116.7	98.4	83.0	103.8	115.5	95.2	104.3	93.6	113.2	94.1	100.8	99.6	
1945: Average	105.8	128.2	106.2	118.1	100.1	84.0	104.7	117.8	95.2	104.5	94.7	116.8	95.9	101.8	100.8	
August	105.7	126.9	106.4	118.0	99.6	84.8	104.7	117.8	95.3	104.5	94.8	116.3	95.5	101.8	100.9	
1946: Average	121.1	148.9	130.7	137.2	116.3	90.1	115.5	132.6	101.4	111.6	100.3	134.7	110.8	116.1	114.9	
June	112.9	140.1	112.9	122.4	109.2	87.8	112.2	129.9	96.4	110.4	98.5	126.3	105.7	107.3	106.7	
November	139.7	169.8	165.4	172.5	131.6	94.5	130.2	145.5	118.9	118.2	106.5	153.4	129.1	134.7	132.9	
1947: Average	151.8	181.3	168.7	181.9	140.9	108.7	*145.1	179.5	127.3	129.1	114.3	165.6	148.5	145.5	145.1	
May	147.1	175.7	159.8	170.8	138.9	103.3	*141.9	177.0	127.1	128.8	116.1	158.6	144.9	141.7	140.6	
June	147.6	177.9	161.8	173.2	138.9	103.9	*142.0	174.4	120.2	129.2	112.7	160.2	145.9	141.7	140.7	
July	150.6	181.4	167.1	178.4	139.5	108.9	*143.0	175.7	118.8	129.8	113.0	165.3	147.0	144.0	143.6	
August	153.6	181.7	172.3	182.1	140.8	112.5	*148.4	179.7	117.5	129.7	112.7	167.0	149.5	147.6	147.2	
September	157.4	186.4	179.3	184.8	142.0	114.1	*150.1	183.3	122.3	130.6	115.9	170.8	152.0	151.6	150.8	
October	158.5	189.7	177.8	191.7	143.0	115.9	*150.5	185.8	128.6	132.3	117.1	175.1	154.1	151.1	151.5	
November	159.7	187.9	178.0	202.4	144.7	118.1	*150.8	187.5	135.8	137.7	118.8	175.5	156.4	152.3	153.3	
December	163.2	196.7	178.4	203.1	147.6	124.3	*151.4	191.0	135.0	139.7	121.5	182.0	157.9	154.7	155.7	
1948: January	165.7	199.2	179.9	200.3	147.6	130.0	*154.3	193.1	138.8	141.4	123.5	183.9	157.6	157.7	158.1	
February	160.8	185.3	172.4	192.8	*148.4	130.7	*155.3	*192.6	134.6	141.8	119.9	174.9	*155.3	*154.5	155.2	
March	161.4	186.0	173.8	185.4	*149.8	130.9	*155.9	*193.1	136.1	142.0	120.8	174.7	*152.9	*155.8	*155.7	
April	162.7	186.7	176.7	186.1	149.6	131.6	156.7	194.9	136.2	142.3	121.8	175.5	154.0	157.5	157.3	
May	163.8	189.1	177.4	187.5	149.6	132.6	157.1	196.3	134.7	142.7	121.5	177.6	153.6	158.4	158.1	

[1] BLS wholesale price data, for the most part, represent prices in primary markets. They are prices charged by manufacturers or producers or are prices prevailing on organized exchanges. The weekly index is calculated from one-day-a-week prices; the monthly index from an average of these prices. Monthly indexes for the last 2 months are preliminary.

The indexes currently are computed by the fixed base aggregate method, with weights representing quantities produced for sale in 1929–31. (For a detailed description of the method of calculation see "Revised Method of Calculation of the Bureau of Labor Statistics Wholesale Price Index," in the Journal of the American Statistical Association, December 1937.)

Because of past differences in the method of computation the weekly and monthly indexes should not be compared directly. The weekly index is useful only to indicate week-to-week changes and to provide later data on price movements. It is not revised to take account of more complete reports.

Mimeographed tables are available, upon request to the Bureau, giving monthly indexes for major groups of commodities since 1890 and for subgroups and economic groups since 1913. Weekly indexes have been prepared since 1932.

[2] Includes current motor vehicle prices beginning with October 1946. The rate of production of motor vehicles in October 1946 exceeded the monthly average rate of civilian production in 1941, and in accordance with the announcement made in September 1946, the Bureau introduced current prices for motor vehicles in the October calculations. During the war, motor vehicles were not produced for general civilian sale and the Bureau carried April 1942 prices forward in each computation through September 1946.

*Revised.

TABLE D–8: Indexes of Wholesale Prices,[1] by Group of Commodities, by Weeks

[Indexes 1926=100. Not directly comparable with monthly data. See footnote 1, table D–7]

Week ending	All commodities	Farm products	Foods	Hides and leather products	Textile products	Fuel and lighting materials	Metals and metal products	Building materials	Chemicals and allied products	House-furnishings goods	Miscellaneous goods	Raw materials	Semi-manufactured products	Manufactured products	All commodities except farm products	All commodities except farm products and foods
1948																
Apr. 3	160.1	183.9	172.4	186.0	145.1	131.7	156.6	193.2	135.5	144.3	121.0	174.8	152.9	154.9	154.8	
Apr. 10	160.6	183.1	174.5	186.2	145.5	131.8	157.1	193.4	136.8	144.7	120.7	174.1	153.6	156.0	155.6	
Apr. 17	162.9	189.2	178.8	187.2	145.9	131.9	157.1	194.9	136.8	144.7	121.5	178.0	153.6	157.8	157.1	
Apr. 24	163.6	188.9	180.4	187.1	148.2	132.6	157.2	195.3	136.5	144.4	122.2	177.8	153.7	158.9	158.0	
May 1	162.6	186.9	177.5	188.0	148.1	132.6	157.2	195.2	133.7	144.4	121.3	176.8	153.7	157.9	157.2	
May 8	161.9	184.0	174.8	188.2	148.2	133.0	156.8	195.9	133.4	144.6	121.3	175.1	153.3	157.6	156.9	
May 15	163.5	187.9	178.9	189.0	148.1	133.4	156.5	195.9	134.4	144.7	121.2	177.7	152.5	159.0	158.0	
May 22	163.5	189.2	177.2	188.6	148.6	133.7	156.6	196.6	135.6	144.7	121.4	178.6	152.5	158.7	157.8	
May 29	164.4	193.0	178.0	187.6	149.5	133.8	156.6	196.9	134.8	144.7	121.0	180.8	152.6	159.1	158.1	
June 5	164.2	192.4	178.0	187.0	149.2	133.8	156.8	196.6	135.2	145.1	121.0	180.9	153.0	158.6	158.0	
June 12	164.9	193.5	180.1	186.7	148.8	133.8	157.1	196.9	137.1	145.1	120.9	181.6	153.0	159.3	158.5	
June 19	165.3	194.5	180.7	187.7	148.5	134.0	157.6	197.2	136.0	145.1	121.1	182.7	153.6	159.5	158.8	
June 26	166.7	198.4	183.0	188.6	149.1	134.0	158.8	197.4	135.5	145.0	121.2	185.2	153.9	160.5	159.7	

[1] See footnote 1, table D–7.

TABLE D–9: Indexes of Wholesale Prices,[1] by Group and Subgroup of Commodities

[1926=100]

Group and subgroup	1948					1947								1946	1939
	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	June	Aug.
All commodities[2]	163.8	162.7	161.4	160.8	165.7	163.2	159.7	158.5	157.4	153.6	150.6	147.6	147.1	112.9	75.0
Farm products	189.1	186.7	186.0	185.3	199.2	196.7	187.9	189.7	186.4	181.7	181.4	177.9	175.7	140.1	61.0
Grains	213.5	217.9	218.0	220.0	256.3	252.7	245.5	241.4	230.3	208.8	202.3	206.0	202.4	151.8	51.5
Livestock and poultry	219.0	204.4	209.4	210.0	232.9	226.3	211.0	224.5	224.8	215.9	209.9	200.9	198.7	137.4	66.0
Other farm products	163.3	166.4	162.2	159.9	162.4	162.5	157.2	153.7	150.3	152.6	157.5	155.3	153.5	137.5	60.1
Foods	177.4	176.7	173.8	172.4	179.9	178.4	178.0	177.8	179.3	172.3	167.1	161.8	159.8	112.9	67.2
Dairy products	176.6	181.0	179.8	184.8	183.9	183.5	175.9	167.3	170.6	164.3	152.8	140.9	138.8	127.3	67.9
Cereal products	156.3	158.0	158.6	160.2	170.1	170.6	172.5	167.6	158.7	153.3	154.7	149.2	151.7	101.7	71.9
Fruits and vegetables	147.0	148.6	145.7	144.8	141.1	135.4	135.5	130.8	130.1	133.0	139.7	145.2	144.3	136.1	58.5
Meats	233.2	226.0	217.1	206.2	222.3	214.8	217.6	230.0	244.8	234.6	217.9	208.6	203.0	110.1	73.7
Other foods	144.2	144.4	144.3	146.7	155.0	160.0	159.4	157.2	150.7	140.7	141.7	139.7	138.4	98.1	60.3
Hides and leather products	187.5	186.1	185.4	192.8	200.3	203.1	202.4	191.7	184.8	182.1	178.4	173.2	170.8	122.4	92.7
Shoes	185.6	191.7	193.8	194.7	194.3	190.7	187.0	178.0	175.2	174.9	173.2	172.6	172.2	129.5	100.8
Hides and skins	218.0	199.3	186.2	207.2	238.9	256.9	263.4	243.7	221.1	215.6	203.5	187.1	177.7	121.5	77.2
Leather	188.2	183.6	185.9	199.9	209.2	216.2	216.0	204.3	197.4	190.7	187.4	178.9	176.3	110.7	84.0
Other leather products	143.3	143.3	143.8	143.8	143.8	141.8	141.3	139.6	139.5	139.1	138.8	138.3	138.3	115.2	97.1
Textile products	149.6	149.6	*149.7	*148.4	147.6	147.6	144.7	143.0	142.0	140.8	139.5	138.9	138.9	109.2	67.8
Clothing	145.8	145.8	*144.6	*143.0	140.4	136.3	135.6	134.7	134.4	134.3	134.3	133.9	133.9	120.3	81.5
Cotton goods	215.2	216.7	218.3	214.9	214.8	213.5	209.1	204.6	202.3	199.2	195.9	193.8	193.0	139.4	65.5
Hosiery and underwear	105.4	105.4	105.4	105.0	104.4	103.0	101.4	100.0	99.9	99.9	100.4	100.8	100.8	75.8	61.5
Rayon	40.7	40.7	40.7	40.7	40.7	40.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	30.2	28.5
Silk	46.4	46.4	46.4	46.4	46.4	73.3	73.3	71.2	68.3	68.2	68.2	68.4	67.9	(3)	44.3
Woolen and worsted goods	147.5	147.5	145.2	142.8	141.6	139.6	134.9	134.2	133.8	133.3	130.1	129.2	129.2	112.7	75.5
Other textile products	174.2	170.0	174.7	180.2	181.2	177.8	174.8	176.3	175.1	171.8	171.2	173.8	176.1	112.3	63.7
Fuel and lighting materials	132.6	131.6	130.9	130.7	130.0	124.3	118.1	115.9	114.1	112.5	108.9	103.9	103.3	87.8	72.6
Anthracite	125.6	124.6	124.6	124.4	124.2	123.4	123.3	122.8	122.5	121.7	114.2	112.7	112.2	106.1	72.1
Bituminous coal	181.8	178.9	177.9	177.8	176.8	174.3	173.3	172.2	170.1	169.8	163.0	145.6	145.1	132.8	96.0
Coke	205.4	197.5	190.6	190.6	190.6	183.4	182.2	182.0	181.9	170.2	160.7	157.3	155.7	133.5	104.2
Electricity	(3)	(3)	65.7	66.6	66.4	66.5	66.3	64.9	65.2	64.5	65.0	64.4	64.1	67.2	75.8
Gas	(3)	89.1	88.7	85.8	84.5	85.4	83.6	86.8	87.0	86.0	85.5	85.8	85.0	79.6	86.7
Petroleum and products	122.1	121.8	121.8	121.7	120.7	112.0	99.9	96.5	93.7	92.2	89.8	87.5	86.8	64.0	51.7
Metals and metal products[2]	157.1	157.2	*155.9	*155.3	154.3	151.4	151.8	150.5	150.1	148.4	143.0	142.0	141.9	112.2	93.2
Agricultural machinery and equipment	130.4	129.8	*129.3	128.9	128.4	127.0	125.3	120.7	119.6	118.6	118.4	118.2	117.8	*104.5	93.5
Farm machinery	132.0	131.3	*130.8	*130.4	130.1	128.6	126.7	121.8	120.8	119.7	119.7	119.7	119.2	*104.9	94.7
Iron and steel	148.8	149.4	*147.7	*146.3	144.6	140.2	139.5	139.3	139.0	138.3	131.7	129.9	129.5	110.1	95.1
Motor vehicles	161.8	161.6	161.6	161.6	161.6	160.5	160.3	159.9	159.4	156.3	150.3	149.4	149.3	135.5	92.5
Nonferrous metals	150.0	149.8	146.8	146.8	145.5	143.0	142.2	142.0	142.0	141.8	141.8	142.9	143.9	99.2	74.6
Plumbing and heating	143.2	138.7	138.7	138.7	137.9	136.1	136.0	136.0	135.9	128.6	123.4	119.1	120.0	106.0	79.3
Building materials	196.3	195.2	*193.1	*192.6	193.1	191.0	187.5	185.8	183.3	179.7	175.7	174.4	177.0	129.9	89.6
Brick and tile	152.8	152.5	151.6	151.1	150.9	148.8	147.3	145.6	145.4	144.3	143.3	134.7	134.5	121.3	90.5
Cement	128.2	127.5	127.4	127.2	126.4	121.6	120.6	120.1	119.0	116.9	114.9	114.3	114.0	102.6	91.3
Lumber	312.9	309.2	303.8	303.8	307.3	303.2	295.6	290.0	285.7	276.7	269.0	266.1	269.4	176.0	90.1
Paint and paint materials	157.8	157.9	156.7	159.6	163.2	164.0	161.8	161.4	157.9	154.9	156.1	159.6	169.2	108.6	82.1
Plumbing and heating	143.2	138.7	138.7	138.7	137.9	136.1	136.0	136.0	135.9	128.6	123.4	119.1	120.0	106.0	79.3
Structural steel	153.3	155.8	155.8	149.4	143.0	143.0	143.0	143.0	143.0	143.0	130.8	127.7	127.7	120.1	107.3
Other building materials	163.1	162.2	*161.8	*159.6	157.2	155.5	152.6	152.5	150.6	150.1	146.1	145.1	144.8	118.4	89.5
Chemicals and allied products	134.7	*136.2	136.1	134.6	138.8	135.0	135.8	128.6	122.3	117.5	118.8	120.2	127.1	96.4	74.2
Chemicals	125.9	126.8	126.8	126.5	125.8	124.1	124.3	122.1	118.2	117.5	119.9	118.7	118.7	98.0	83.8
Drug and pharmaceutical materials	153.3	153.8	154.4	154.3	154.4	154.9	151.1	137.5	136.6	136.6	137.4	156.1	173.6	109.4	77.1
Fertilizer materials	115.0	115.2	114.9	114.8	115.6	114.4	112.0	111.3	109.8	105.5	103.5	101.8	102.5	82.7	65.5
Mixed fertilizers	103.2	103.1	103.1	102.8	102.4	101.5	100.8	97.7	97.2	97.3	97.2	96.8	96.7	86.6	73.1
Oils and fats	205.0	*213.2	211.4	201.5	236.7	215.9	226.7	193.4	163.3	133.3	134.8	139.2	179.9	102.1	40.6
House-furnishing goods	142.7	142.3	142.0	141.8	141.4	139.7	137.7	132.3	130.6	129.7	129.8	129.2	128.8	110.4	85.6
Furnishings	145.8	145.2	144.7	144.4	143.9	142.8	140.0	139.3	138.5	138.1	138.1	137.2	136.9	114.5	90.0
Furniture	139.7	139.7	139.4	139.4	139.1	*136.2	*134.7	*134.1	*131.3	*129.1	*128.9	*128.6	*128.5	108.5	81.1
Miscellaneous	121.5	121.8	120.8	119.9	123.5	121.5	118.8	117.1	115.9	112.7	113.0	112.7	116.1	98.5	73.3
Automobile tires and tubes	63.4	63.4	63.4	63.4	63.4	63.4	61.0	60.8	60.8	60.8	60.8	62.5	66.7	65.7	59.5
Cattle feed	291.1	296.9	284.2	262.0	336.0	308.2	282.7	280.5	287.2	261.3	209.4	253.3	237.4	197.8	68.4
Paper and pulp	167.4	167.5	167.0	167.1	168.1	164.7	160.7	159.8	159.5	157.6	157.2	154.2	154.3	115.6	80.0
Rubber, crude	47.6	46.7	42.3	42.7	44.7	44.5	49.3	43.0	36.4	33.7	34.6	37.1	45.6	46.2	34.9
Other miscellaneous	129.7	130.2	130.2	130.4	130.4	130.0	128.4	126.6	124.6	121.3	121.2	121.7	122.1	101.0	81.3

[1] See footnote 1, table D–7.
[2] See footnote 2, table D–7.
[3] Not available.
* Revised.

E: Work Stoppages

TABLE E–1: Work Stoppages Resulting From Labor-Management Disputes [1]

Month and year	Number of stoppages		Workers involved in stoppages		Man-days idle during month or year	
	Beginning in month or year	In effect during month	Beginning in month or year	In effect during month	Number	Percent of estimated working time
1935–39 (average)	2,862	----------	1,130,000	----------	16,900,000	
1945	4,750	----------	3,470,000	----------	38,000,000	
1946	4,985	----------	4,600,000	----------	116,000,000	
1947	3,693	----------	2,170,000	----------	34,600,000	
1947:						
May	471	781	230,000	696,000	6,730,000	
June	379	701	448,000	597,000	3,960,000	
July	315	581	242,000	615,000	3,970,000	
August	336	583	113,000	259,000	2,520,000	
September	219	435	79,200	187,000	1,970,000	
October	219	393	64,300	171,000	1,780,000	
November	178	328	57,200	139,000	829,000	
December	119	236	32,300	56,900	590,000	
1948: January [2]	175	250	75,000	100,000	1,000,000	
February [2]	200	300	70,000	110,000	725,000	
March [2]	225	350	500,000	550,000	6,000,000	
April [2]	275	400	175,000	625,000	8,000,000	
May [2]	275	425	165,000	350,000	4,100,000	

[1] All known work stoppages, arising out of labor-management disputes, involving six or more workers and continuing as long as a full day or shift are included in reports of the Bureau of Labor Statistics. Figures on "workers involved" and "man-days idle" cover all workers made idle in establishments directly involved in a stoppage. They do not measure the indirect or secondary effects on other establishments or industries whose employees are made idle as a result of material or service shortages.

[2] Preliminary estimates.

F: Building and Construction

TABLE F–1: Expenditures for New Construction [1]

[Value of work put in place]

Type of construction	Expenditures (in millions)														
	1948						1947							1947	19
	June [2]	May [2]	Apr. [2]	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	Total	To
Total new construction [4]	$1,605	$1,445	$1,302	$1,166	$1,009	$1,157	$1,320	$1,432	$1,497	$1,423	$1,364	$1,264	$1,162	$13,977	$1
Private construction	1,218	1,106	1,015	940	837	948	1,097	1,141	1,129	1,086	1,042	966	885	10,893	
Residential building (nonfarm)	625	575	525	475	400	500	610	630	590	540	500	455	405	5,260	
Nonresidential building (nonfarm) [3]	306	278	263	266	265	273	284	287	275	267	260	254	250	3,131	
Industrial	110	112	116	120	125	130	134	136	137	138	139	139	140	1,702	
Commercial	117	98	87	88	84	85	91	93	82	75	69	67	65	835	
Warehouses, office and loft buildings	28	25	23	22	22	24	22	19	14	14	15	15	16	216	
Stores, restaurants, and garages	89	73	64	66	62	61	69	74	68	61	54	52	49	619	
Other nonresidential building	79	68	60	58	56	58	59	58	56	54	52	48	45	594	
Religious	19	15	13	13	12	13	13	13	13	12	11	10	8	118	
Educational	18	17	16	15	15	16	17	17	17	16	16	14	12	164	
Hospital and institutional	10	10	9	9	9	9	9	9	8	9	9	9	9	107	
Remaining types [5]	32	26	22	21	20	20	20	19	18	17	16	15	16	205	
Farm construction	62	50	37	23	14	14	15	25	50	65	75	60	50	450	
Public utilities	225	203	190	176	158	161	188	199	214	214	207	197	180	2,052	
Railroad	30	26	25	23	21	24	28	30	32	33	33	31	27	318	
Telephone and telegraph	55	55	55	54	48	45	55	53	59	54	46	44	40	510	
Other public utilities	140	122	110	99	89	92	105	116	123	127	128	122	113	1,224	
Public construction	387	339	287	226	172	209	223	291	368	337	322	298	277	3,084	
Residential building	6	5	6	5	6	9	8	8	9	7	8	9	8	182	
Nonresidential building (other than military or naval facilities)	83	77	71	65	49	53	52	50	53	49	45	42	43	505	
Industrial [7]	2	2	2	1	1	1	0	0	1	1	1	2	2	25	
Educational	43	40	37	36	30	32	32	29	27	26	25	23	24	275	
Hospital and institutional	19	15	13	10	7	7	8	8	9	8	7	7	7	81	
All other nonresidential	19	20	19	18	11	13	12	13	16	14	12	10	10	124	
Military and naval facilities	15	13	13	12	11	14	17	19	23	22	22	19	15	204	
Highways	170	136	98	57	41	56	65	119	178	159	149	137	125	1,233	
Sewer and water	40	39	38	33	25	27	28	32	35	32	32	31	30	331	
Miscellaneous public-service enterprises [8]	10	11	9	9	6	8	8	10	11	12	12	11	11	117	
Conservation and development	50	45	41	36	28	33	36	41	45	44	42	39	35	396	
All other public [9]	13	13	11	9	6	9	9	12	14	12	12	10	10	116	

See footnotes on page 113.

ABLE F–2: Value of Contracts Awarded and Force-Account Work Started on Federally Financed New Construction, by Type of Construction [1]

Period	Value (in thousands)														
			Building									Conservation and development			
					Nonresidential										
	Total new construction [2]	Airports [3]	Total	Residential	Total	Educational [4]	Hospital and institutional			Administration and general [5]	Other	Total	Reclamation	River, harbor, and flood control	Highways	All other [6]
							Total	Veterans'	Other							
	$1,533,439	(7)	$561,394	$63,465	$497,929	(7)	(7)	(7)	(7)	(7)	(7)	$189,710	$73,797	$115,913	$511,685	$270,650
	1,586,604	$4,753	669,222	231,071	438,151	(7)	(7)	(7)	(7)	(7)	(7)	225,423	115,612	109,811	355,701	331,505
	7,775,497	579,176	6,130,389	549,472	5,580,917	(7)	(7)	(7)	(7)	(7)	(7)	217,795	150,708	67,087	347,988	500,149
	1,450,252	14,859	549,656	435,453	114,203	(7)	(7)	(7)	(7)	(7)	(7)	300,405	169,253	131,152	535,784	49,548
	1,294,069	24,645	276,514	51,186	225,328	$47,692	$101,831	$96,123	$5,708	$31,159	$44,646	308,029	77,095	230,934	657,087	27,794
May	123,547	2,652	21,773	5,967	15,806	3,681	2,378	147	2,231	3,147	6,600	31,779	4,443	27,336	64,248	3,095
June	181,438	9,079	58,262	21,248	37,014	2,914	5,803	4,059	1,744	4,948	23,349	51,045	11,778	39,267	57,440	5,612
July	70,596	1,230	6,459	409	6,050	2,575	1,218	559	659	1,883	374	3,869	1,763	2,106	57,845	1,193
August	121,083	1,346	34,055	4,347	29,708	1,304	24,466	24,281	185	2,518	1,420	19,412	16,186	3,226	65,742	528
September	89,262	1,109	5,153	409	4,744	1,155	249	217	32	2,565	775	22,197	1,699	20,498	59,827	976
October	111,191	4,503	7,928	586	7,342	1,198	705	668	37	1,578	3,861	20,650	3,967	16,685	73,720	4,390
November	114,096	772	16,351	711	15,640	912	9,991	9,961	30	3,506	1,231	46,049	628	45,421	49,220	1,704
December	112,388	806	32,973	104	32,869	913	26,433	26,378	55	3,332	2,191	19,541	6,928	12,613	54,349	4,719
January	105,737	808	14,136	149	13,987	253	8,818	8,603	215	1,961	2,955	41,585	4,667	36,918	47,268	1,940
February	155,428	645	46,632	859	45,773	168	41,762	41,557	205	1,735	2,108	57,361	1,229	56,132	49,426	1,364
March	145,350	5,322	63,193	61	63,132	256	59,131	58,920	211	1,230	2,515	21,793	6,639	15,154	51,561	3,481
April [8]	154,375	2,521	9,867	553	9,314	12	5,606	5,049	557	1,863	1,833	79,782	56,934	22,848	58,247	3,958
May [9]	113,251	916	24,632	364	24,268	468	20,188	20,018	170	1,858	1,754	10,257	4,738	5,519	75,598	1,848

[1] Excludes projects classified as "secret" by the military, and all construction for the Atomic Energy Commission. Data for Federal-aid programs cover amounts contributed by both the owner and the Federal Government.
[2] Includes major additions and alterations.
[3] Excludes hangars and other buildings, which are included under building construction.
[4] Includes educational facilities under the Federal temporary reuse educational facilities program.
[5] Includes post offices, armories, offices, and customs houses.
[6] Includes electrification projects, water supply and sewage-disposal systems, forestry projects, railroad construction, and other types of projects not elsewhere classified.
[7] Unavailable.
[8] Revised.
[9] Preliminary.

OOTNOTES TO TABLE F–1.

[1] Joint estimates of the Bureau of Labor Statistics, U. S. Department of Labor, and the Office of Domestic Commerce, U. S. Department of Commerce. Estimated construction expenditures represent the monetary value of the volume of work accomplished during the given period of time. These figures should be differentiated from permit valuation data reported in the tabulations for urban building authorized and the data on value of contract awards reported in table F–2.
[2] Preliminary.
[3] Revised.
[4] Includes major additions and alterations.
[5] Excludes nonresidential building by privately owned public utilities.
[6] Includes social and recreational buildings, hotels, and miscellaneous buildings not elsewhere classified.
[7] Excludes expenditures to construct facilities used in atomic energy projects.
[8] Covers primarily publicly owned electric light and power systems and local transit facilities.
[9] Covers miscellaneous construction items such as airports, monuments, memorials, etc.

TABLE F–3: Urban Building Authorized, by Principal Class of Construction and by Type of Building [1]

Period	Total all classes [2]	Valuation (in thousands)								Number of new dwelling units—Housekeeping only				
		New residential building						New nonresidential building	Additions, alterations, and repairs	Privately financed				Publicly financed
		Housekeeping					Nonhousekeeping [3]			Total	1-family	2-family [3]	Multifamily [4]	
		Privately financed dwelling units				Publicly financed dwelling units								
		Total	1-family	2-family [3]	Multifamily [4]									
1942	$2,707,573	$598,570	$478,658	$42,629	$77,283	$296,933	$22,910	$1,510,688	$278,472	184,892	138,908	15,747	30,237	98,946
1946	4,743,414	2,114,833	1,830,260	103,042	181,531	355,587	43,369	1,458,602	771,023	430,195	358,151	24,326	47,718	93,310
1947	5,549,718	2,880,926	2,361,509	156,408	363,009	35,177	29,831	1,712,672	891,112	501,353	393,550	34,159	73,644	5,106
1947: April	446,222	238,453	202,846	13,491	22,116	1,949	1,428	129,474	74,918	42,536	35,214	3,144	4,178	328
May	428,878	224,952	189,255	14,068	21,629	0	2,994	128,196	72,736	41,112	33,644	3,085	4,383	0
June	488,843	252,854	198,408	13,997	40,449	6,517	1,723	141,919	85,830	45,981	34,591	3,480	7,910	1,008
July	537,317	271,142	221,264	14,268	35,610	315	1,809	170,181	93,870	47,167	36,973	3,053	7,141	36
August	567,979	297,022	238,222	16,432	42,368	1,604	2,966	182,041	84,346	51,121	39,233	3,521	8,367	120
September	561,536	303,186	251,286	14,780	37,120	2,229	4,080	162,234	89,807	51,877	40,834	2,992	8,051	276
October	604,165	340,627	275,691	18,032	46,904	3,795	3,450	168,334	87,957	55,870	42,825	3,536	9,509	660
November	501,556	256,723	201,262	15,724	39,742	6,519	5,620	166,472	66,217	41,010	30,284	3,316	7,410	960
December	479,881	227,675	179,806	11,951	35,918	2,992	2,284	177,315	69,615	36,088	26,596	2,443	7,049	396
1948: January	426,531	198,698	150,879	11,501	36,318	6,616	3,224	152,086	65,907	32,523	23,704	2,280	6,539	930
February	414,339	202,050	146,934	8,954	46,162	9,237	1,441	141,188	60,423	32,166	22,180	1,863	8,123	1,128
March [6]	631,621	321,562	252,778	20,016	48,768	597	4,082	222,565	82,815	50,788	37,520	4,092	9,176	96
April [7]	711,513	409,749	317,697	34,316	57,736	1,960	6,166	195,330	98,308	64,200	45,677	6,981	11,542	264

[1] Building for which building permits were issued and Federal contracts awarded in all urban places, including an estimate of building undertaken in some smaller urban places that do not issue permits.

The data cover federally and non-federally financed building construction combined. Estimates of non-Federal (private, and State and local government) urban building construction are based primarily on building-permit reports received from places containing about 85 percent of the urban population of the country; estimates of federally financed projects are compiled from notifications of construction contracts awarded, which are obtained from other Federal agencies. Data from building permits are not adjusted to allow for lapsed permits or for lag between permit issuance and the start of construction. Thus, the estimates do not represent construction actually started during the month.

Urban, as defined by the Bureau of the Census, covers all incorporated places of 2,500 population or more in 1940, and, by special rule, a small number of unincorporated civil divisions.

[2] Covers additions, alterations, and repairs, as well as new residential and nonresidential building.

[3] Includes units in 1-family and 2-family structures with stores.

[4] Includes units in multifamily structures with stores.

[5] Covers hotels, dormitories, tourist cabins, and other nonhousekeeping residential buildings.

[6] Revised.

[7] Preliminary.

TABLE F–4: New Nonresidential Building Authorized in All Urban Places,[1] by General Type and by Geographic Division [2]

Geographic division and type of new nonresidential building	Valuation (in thousands)														
	1948				1947									1947	1946
	Apr.[3]	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Total	Total
All types	$195,330	$222,565	$141,188	$152,086	$177,315	$166,472	$168,334	$162,234	$182,041	$170,181	$141,919	$128,196	$129,474	$1,712,674	$1,458,602
New England	10,279	8,956	5,236	26,689	6,307	14,753	12,395	10,949	6,541	10,540	11,363	10,169	8,972	109,831	103,716
Middle Atlantic	27,054	55,770	20,497	9,305	42,529	23,513	21,465	18,845	40,322	28,337	19,729	17,220	24,140	271,742	195,151
East North Central	44,698	33,614	26,458	21,268	29,084	36,414	44,187	36,338	49,539	39,079	27,858	26,609	27,661	372,866	338,659
West North Central	14,985	16,434	16,566	8,813	19,008	12,263	13,476	12,217	10,752	10,799	15,416	11,186	9,278	132,163	112,927
South Atlantic	22,789	25,267	14,562	18,547	21,403	15,958	19,182	17,791	16,321	19,831	18,827	19,605	14,785	200,042	171,247
East South Central	6,176	9,902	3,928	7,152	7,327	5,076	6,159	6,175	6,936	8,342	6,801	5,263	5,935	73,138	65,583
West South Central	21,821	21,558	27,433	27,121	17,923	26,079	15,366	19,454	11,915	19,141	18,335	14,217	14,189	193,072	132,641
Mountain	6,240	8,724	3,826	2,761	4,067	3,828	5,449	6,039	9,646	3,906	3,224	4,423	4,354	58,162	40,287
Pacific	41,288	42,340	22,682	30,460	29,669	28,590	30,657	34,424	30,071	30,184	20,365	10,502	20,162	301,658	298,391
Industrial buildings [4]	26,701	32,910	16,883	17,453	33,524	22,702	25,194	27,806	40,407	25,762	8,120	25,413	22,937	321,847	397,237
New England	971	1,806	1,051	803	1,642	2,601	1,920	2,504	892	1,616	5,018	1,857	1,199	25,952	19,477
Middle Atlantic	7,518	6,823	3,699	2,250	7,053	3,067	4,963	4,668	7,615	6,743	4,640	3,316	3,644	57,755	77,845
East North Central	9,064	9,513	3,859	5,477	10,137	9,012	9,342	9,538	21,767	9,764	8,827	8,908	8,617	118,666	133,599
West North Central	3,081	1,728	1,205	971	1,781	1,384	1,671	2,010	3,078	2,137	1,745	1,123	2,001	19,890	29,161
South Atlantic	1,519	4,469	1,640	1,927	3,851	1,410	1,714	1,304	1,315	1,818	1,646	2,021	834	20,549	34,612
East South Central	225	1,088	330	466	1,489	981	717	1,557	1,207	839	1,657	1,323	1,319	13,573	14,688
West South Central	760	2,409	1,637	1,641	2,666	1,456	1,282	1,516	1,657	686	913	2,762	1,088	17,519	13,145
Mountain	79	383	119	380	181	359	257	504	200	164	322	177	113	2,852	4,417
Pacific	3,484	4,691	3,343	3,568	4,724	2,432	3,328	4,205	2,676	1,995	3,352	3,926	4,122	45,091	70,293
Commercial buildings [5]	83,829	82,366	47,315	72,617	65,591	66,927	78,647	82,681	69,641	72,884	55,599	48,028	45,654	686,920	669,574
New England	3,402	2,547	1,257	12,431	1,804	3,367	4,203	4,233	3,294	3,440	3,222	1,947	2,386	32,853	43,164
Middle Atlantic	11,483	12,753	5,411	5,412	13,222	8,114	10,739	7,641	9,780	9,316	7,357	6,314	7,581	90,725	74,569
East North Central	15,198	10,010	7,891	10,188	11,518	13,767	15,739	14,846	17,196	14,647	7,795	5,931	6,992	119,958	119,011
West North Central	5,691	8,286	2,586	5,171	6,885	5,215	5,960	6,342	4,585	5,624	6,089	4,303	4,412	57,240	51,822
South Atlantic	13,498	9,118	8,170	7,445	7,949	7,721	10,423	11,353	10,031	12,358	11,691	10,987	8,479	106,788	87,405
East South Central	3,891	3,245	2,027	4,172	1,978	2,582	3,619	2,997	3,821	4,762	3,475	2,349	2,764	34,680	34,647
West South Central	10,441	10,917	8,062	12,036	8,705	8,292	9,968	11,651	6,477	7,502	7,897	6,688	5,052	91,548	82,156
Mountain	3,747	4,998	2,093	1,484	1,651	2,753	2,950	3,370	2,431	1,727	1,811	3,036	1,899	26,855	26,057
Pacific	16,478	20,492	9,818	14,278	11,879	15,116	15,046	20,248	12,026	13,508	6,262	6,473	6,089	126,273	150,743
Community buildings [6]	51,410	78,226	58,666	34,404	49,975	48,969	37,262	23,340	49,750	38,567	33,205	29,155	30,089	408,860	190,163
New England	4,255	3,477	1,465	5,944	938	5,110	4,214	788	1,437	1,740	1,574	3,760	3,610	25,759	19,739
Middle Atlantic	4,373	32,780	10,049	666	20,629	10,419	2,418	4,538	20,718	3,415	3,444	4,196	1,669	80,190	21,247
East North Central	13,954	8,707	10,989	2,623	4,336	5,355	9,798	3,553	3,802	8,707	4,451	4,345	5,883	62,541	42,412
West North Central	2,665	3,796	11,998	787	7,752	3,760	4,174	1,410	1,549	1,739	5,568	2,664	1,533	34,639	19,160
South Atlantic	4,761	9,623	3,341	7,570	3,617	5,151	5,149	2,991	3,659	3,239	2,959	4,859	2,236	40,161	22,570
East South Central	1,243	1,134	675	1,757	3,239	709	1,427	1,111	974	1,436	1,059	1,246	990	16,895	12,954
West South Central	7,359	6,463	16,591	11,007	4,313	13,456	2,907	4,193	2,218	9,827	8,481	3,588	6,562	65,309	25,963
Mountain	1,299	2,778	608	409	1,270	392	1,659	1,117	5,212	1,080	672	551	947	18,366	5,367
Pacific	11,501	9,468	2,950	3,641	3,881	4,617	5,516	3,639	10,181	7,384	4,997	3,946	6,659	63,030	20,751
Public buildings [7]	4,898	7,055	5,323	5,577	4,556	4,920	1,767	3,744	3,398	2,769	7,544	3,256	7,435	40,699	12,042
New England	121	455	1,250	2,289	502	834	355	0	77	182	21	161	1,021	3,418	371
Middle Atlantic	402	488	112	214	219	200	3	10	324	244	1,740	875	959	4,712	1,493
East North Central	289	849	568	684	900	802	386	1,444	1,332	476	1,147	682	903	8,171	880
West North Central	1,500	124	77	535	200	26	86	168	177	222	344	163	157	1,696	190
South Atlantic	598	394	349	30	92	244	237	7	306	871	1,675	84	2,554	6,285	988
East South Central	209	3,374	417	206	150	166	55	135	17	3	128	10	145	830	116
West South Central	149	496	566	1,023	551	1,842	165	615	314	35	366	296	125	4,430	665
Mountain	341	61	259	113	180	0	99	362	282	181	0	261	931	2,416	70
Pacific	1,289	814	1,725	483	1,762	806	381	1,003	569	555	2,123	724	640	8,741	7,269
Public works and utility buildings [8]	15,639	12,715	7,483	16,284	16,942	13,105	12,128	12,889	7,452	18,263	8,294	12,344	13,885	143,827	102,241
New England	581	309	75	5,113	1,092	2,243	741	2,723	147	2,922	909	1,739	151	15,086	15,638
Middle Atlantic	1,839	1,784	671	365	576	518	1,205	608	681	7,202	1,378	1,210	8,990	24,968	10,052
East North Central	2,691	2,889	2,481	1,649	1,211	5,544	5,413	3,541	2,767	2,203	3,100	4,413	2,640	35,972	23,383
West North Central	701	1,762	459	1,035	1,803	508	552	1,036	282	98	810	1,986	223	8,738	6,108
South Atlantic	1,555	592	670	1,125	5,347	872	813	1,434	346	759	372	905	175	19,046	20,037
East South Central	315	702	325	410	307	413	51	125	550	1,024	285	84	379	4,154	862
West South Central	2,100	688	208	814	1,241	411	339	740	720	616	59	323	782	7,648	5,048
Mountain	238	155	575	50	499	13	0	158	1,147	455	21	15	140	3,520	1,486
Pacific	5,619	3,834	2,019	5,723	4,866	2,583	3,014	2,524	812	2,984	1,360	1,669	405	24,695	19,627
All other buildings [9]	12,853	9,293	5,518	5,751	6,729	9,851	13,338	11,772	11,395	11,933	9,156	9,998	9,476	112,491	77,345
New England	949	362	138	109	329	598	962	701	694	640	619	705	605	6,764	5,328
Middle Atlantic	1,439	1,142	555	398	830	1,195	2,137	1,380	1,204	1,437	1,170	1,309	1,297	13,392	9,944
East North Central	3,502	1,646	670	647	982	1,934	3,509	3,416	2,675	3,282	2,538	2,330	2,626	27,556	19,374
West North Central	1,347	738	241	314	587	1,370	1,033	1,251	1,081	979	860	947	952	9,961	6,485
South Atlantic	858	1,071	392	450	547	560	846	702	664	785	484	749	507	7,213	5,635
East South Central	293	359	154	141	164	225	290	250	367	278	197	251	338	3,005	2,316
West South Central	1,012	585	369	600	447	622	705	739	529	475	619	560	580	6,618	5,664
Mountain	536	349	172	325	256	311	484	528	374	299	398	383	324	4,153	2,889
Pacific	2,917	3,041	2,827	2,767	2,557	3,036	3,372	2,805	3,807	3,758	2,271	2,764	2,247	33,829	29,710

[1] Building for which permits were issued and Federal contracts awarded in all urban places, including an estimate of building undertaken in some smaller urban places that do not issue permits. Sums of components do not always equal totals exactly because of rounding.

[2] For scope and source of urban estimates, see table F–3, footnote [1].

[3] Preliminary.

[4] Includes factories, navy yards, army ordnance plants, bakeries, ice plants, industrial warehouses, and other buildings at the site of these and similar production plants.

[5] Includes amusement and recreation buildings, stores and other mercantile buildings, commercial garages, gasoline and service stations, etc.

[6] Includes churches, hospitals, and other institutional buildings, schools, libraries, etc.

[7] Includes Federal, State, county, and municipal buildings, such as post offices, courthouses, city halls, fire and police stations, jails, prisons, arsenals, armories, Army barracks, etc.

[8] Includes railroad, bus and airport buildings, roundhouses, radio stations, gas and electric plants, public comfort stations, etc.

[9] Includes private garages, sheds, stables and barns, and other buildings not elsewhere classified.

TABLE F–5: Number and Construction Cost of New Permanent Nonfarm Dwelling Units Started, by Urban or Rural Location, and by Source of Funds [1]

Period	Number of new dwelling units started									Estimated construction cost (in thousands) [2]		
	All units			Privately financed			Publicly financed					
	Total nonfarm	Urban	Rural nonfarm	Total nonfarm	Urban	Rural nonfarm	Total nonfarm	Urban	Rural nonfarm	Total	Privately financed	Publicly financed
1925 [3]	937,000	752,000	185,000	937,000	752,000	185,000	0	0	0	$4,475,000	$4,475,000	
1933 [4]	93,000	45,000	48,000	93,000	45,000	48,000	0	0	0	285,446	285,446	
1941 [5]	706,100	434,300	271,800	619,511	369,499	250,012	86,589	64,801	21,788	2,825,895	2,530,765	295,130
1944 [6]	141,800	96,200	45,600	138,692	93,216	45,476	3,108	2,984	124	495,054	483,231	11,823
1946	670,500	403,700	266,800	662,473	395,673	266,800	8,027	8,027	0	3,769,767	3,713,776	55,991
1947	849,000	479,800	369,200	845,560	476,360	369,200	3,440	3,440	0	5,642,798	5,617,425	25,373
1947: First quarter	138,100	81,000	57,100	137,016	79,916	57,100	1,084	1,084	0	808,263	800,592	7,671
January	39,300	24,200	15,100	38,216	23,116	15,100	1,084	1,084	0	223,577	215,906	7,671
February	42,800	25,000	17,800	42,800	25,000	17,800	0	0	0	244,425	244,425	
March	56,000	31,800	24,200	56,000	31,800	24,200	0	0	0	340,261	340,261	
Second quarter	217,200	119,100	98,100	217,000	118,900	98,100	200	200	0	1,361,677	1,360,477	1,200
April	67,100	37,600	29,500	67,100	37,600	29,500	0	0	0	418,451	418,451	
May	72,900	39,300	33,600	72,900	39,300	33,600	0	0	0	452,236	452,236	
June	77,200	42,200	35,000	77,000	42,000	35,000	200	200	0	490,990	489,790	1,200
Third quarter	261,200	142,200	119,000	260,733	141,733	119,000	467	467	0	1,774,150	1,770,475	3,675
July	81,100	44,500	36,600	81,100	44,500	36,600	0	0	0	539,333	539,333	
August	86,300	47,400	38,900	86,108	47,208	38,900	192	192	0	589,470	587,742	1,728
September	93,800	50,300	43,500	93,525	50,025	43,500	275	275	0	645,347	643,400	1,947
Fourth quarter	232,500	137,500	95,000	230,811	135,811	95,000	1,689	1,689	0	1,698,708	1,685,881	12,827
October	94,000	53,200	40,800	93,540	52,740	40,800	460	460	0	678,687	675,197	3,490
November	79,700	48,000	31,700	78,835	47,135	31,700	865	865	0	584,731	578,324	6,407
December	58,800	36,300	22,500	58,436	35,936	22,500	364	364	0	435,290	432,360	2,930
1948: First quarter	167,200	101,000	66,200	165,162	99,112	66,050	2,038	1,888	150	1,226,259	1,209,826	16,433
January	50,000	30,400	19,600	49,197	29,618	19,579	803	782	21	361,994	355,356	6,638
February	47,200	28,800	18,400	46,045	27,774	18,271	1,155	1,026	129	347,851	338,628	9,223
March	70,000	41,800	28,200	69,920	41,720	28,200	80	80	0	516,414	515,842	572
Second quarter												
April [7]	92,000	54,300	37,700	91,725	54,062	37,664	274	238	36	664,897	662,724	2,173

[1] The estimates shown here do not include temporary units, conversions, dormitory accommodations, trailers, or military barracks. They do include prefabricated housing units.

These estimates are based on building-permit records, which, beginning with 1945, have been adjusted for lapsed permits and for lag between permit issuance and start of construction. They are based also on reports of Federal construction contract awards and beginning in 1946, on field surveys in nonpermit-issuing places. The data in this table refer to nonfarm dwelling units started, and not to urban dwelling units authorized, as shown in table F–3.

All of these estimates contain some error. In 1948, for example, if the estimate of nonfarm starts is 50,000, the chances are about 19 out of 20 that an actual enumeration would produce a figure between 47,600 and 52,400. In 1946 and 1947, the range of error was approximately twice as large. The reduction was achieved by improvements in estimating and survey techniques.

[2] Private construction costs are based on permit valuation, adjusted for understatement of costs shown on permit applications. Public construction costs are based on contract values or estimated construction costs for individual projects.

[3] Housing peak year.

[4] Depression, low year.

[5] Recovery peak year prior to wartime limitations.

[6] Last full year under wartime control.

[7] Preliminary.

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